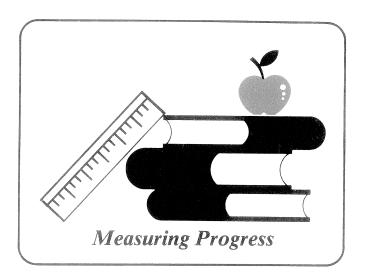
## OFFICE OF EDUCATION ACCOUNTABILITY

## ANNUAL FINANCIAL REPORT



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# OFFICE OF EDUCATION ACCOUNTABILITY DIVISION OF FINANCE ANNUAL REPORT

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# Kentucky General Assembly Office of Education Accountability

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A Message from Dr. Penney Sanders, Director of the Office of Education Accountability

The massive efforts of the Kentucky Education Reform Act (KERA) were coupled with substantial increases in funding for education. This report briefly reviews the financial situation in Kentucky prior to the passage of House Bill 940 as well as the performance of the Support Education Excellence in Kentucky (SEEK) program in its first year, 1990-91. A framework is developed for further study of the equity of SEEK, noting there is substantial work to be done to provide a comprehensive review of the system. The question of adequacy is not addressed, but work is underway to ensure sufficient attention is afforded the issue.

This report was compiled by the OEA Division of Finance, headed by Kyna Koch, assisted by Dolores Everett and Darlene Studle. However, the efforts of this report would not have come to fruition without the assistance of Zita Hardin, Kim Pasley, Shelley Purvis, and Tom Willis.

As Director of the Office of Education Accountability, I am encouraged by the progress of local school districts in the first year of Kentucky's reform efforts and anticipate continued progress toward the goal of equity.

Sincerely,

K. Penney Sanders, Ph.D.

Director

Office of Education Accountability

December, 1991

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#### PART 1. INTRODUCTION

In June 1989, the Kentucky Supreme Court, acting on an appeal of a judgement issued in Franklin Circuit Court, issued an opinion which held the system of common schools in Kentucky unconstitutional. In expressing the opinion of the Court, Chief Justice Robert Stephens wrote: "This decision applies to the entire sweep of the system - - all its parts and parcels,...the whole gamut of the common school system of Kentucky,...Lest there be any doubt, the result of our decision is that Kentucky's entire system of common schools is unconstitutional,...We view this as an opportunity for the General Assembly to launch the Commonwealth into a new era of educational opportunity which will ensure a strong economic, cultural and political future" (Rose 66, 68). Both the court decision and the legislation that followed have been hailed nationwide as landmarks in school litigation and legislation.

The Court focused substantial attention on the areas of funding adequacy and equity, concluding that "the total local and state effort in education in Kentucky's primary and secondary education is inadequate and is lacking in uniformity" (Rose 26). Furthermore, the Court found that the School Foundation Program was "not designed to correct problems of inequality or lack of uniformity between local school districts" (Rose 26).

"The system of common schools must be substantially uniform throughout the state. Each child, every child, in this Commonwealth must be provided with an equal opportunity to have an adequate education. Equality is the key word here. The children of the poor and the children of the rich, the children who live

in the poor districts and the children who live in the rich districts must be given the same opportunity and access to an adequate education" (Rose 58).

Court testimony and subsequent committee hearings showed large gaps in the funding, program and service offerings in Kentucky schools. The contrasts were staggering. Table 1 shows that in 1989-90 the levied equivalent tax rates varied from 22.9 cents to 111.9 cents. Local revenue for schools varied from \$3,716 to \$80 per pupil. Average teacher salaries ranged from \$21,718 to \$30,379. In addition, testimony pointed to the wide variance in the number of special education teachers, guidance counselors and librarians. Some high schools offered dozens of higher level mathematics, science and foreign language classes; others offered none. Recent attempts by the General Assembly to raise academic standards, teacher salaries, etc. appeared to produce little results. Some Kentucky students were receiving a quality education; many were receiving what could be determined mediocre at best.

Responding, the General Assembly established the Task Force on Education Reform and charged it with creating a new system of common schools for Kentucky. The Task Force, composed of legislative leaders and appointees of the governor, was divided into three committees with the Finance Committee directed to develop an approach, or a combination of approaches, by which to distribute state aid to school districts, to also determine the cost of providing programs and services and to examine revenues and expenditures.

TABLE 1 1989-90 PRE-KERA DISPARITIES							
	Low	High					
Property Wealth Per Pupil	\$39,138	\$341,707					
Levied Equivalent Tax Rate	22.9	111.9					
Local Revenue Per Pupil	\$80	\$3,716					
State Revenue Per Pupil	\$1,750	\$2,753					
Av Per Pupil Expenditure							
For Administration	\$31	\$356					
For Instruction	\$1,499	\$3,709					
For Teaching Supplies	\$8	\$259					
Av Administrator Salary	\$32,017	\$56,691					
Av Teacher Salary	\$21,718	\$30,379					
Av Certified Salary	\$24,102	\$32,268					
Staff Per 1000 Pupils							
Classroom Teachers	49.5	84.7					
Librarians	0	7.7					
Guidance Counselors	0	4.5					
Teacher Aides	0	40.7					
Total Certified Staff*	60.4	104.1					

Working with school finance consultant Dr. John Augenblick, the Finance Committee and the 1990 Kentucky General Assembly, as a part of House Bill 940, enacted a new funding mechanism for Kentucky schools. This new mechanism, the Support Education Excellence in Kentucky (SEEK)

program, is intended to address both adequacy and equity. In its wisdom, the Task Force on Education Reform and, ultimately, the General Assembly determined that there was no "quick-fix." House Bill 940 clearly states that the SEEK program will be implemented over a period of five years. Additional components of the funding mechanism, such as the development of pupil weights and a new professional compensation plan, were to be developed during the 1990-92 biennium. Other adjustments, corrections, etc. were expected during the five year period.

This report is a review of the first year of the five year plan. It is a review that begins to build a framework for the study of equity and examines the distribution of state and local funds and how these funds were expended. It is a report that reviews certain components of the funding mechanism - - the base allotment and transportation - - and makes appropriate recommendations to improve these components. Finally, it is a report that clearly points out the tremendous strides that have been made during the first year - - but with a cautionary note that we "have not arrived." Much work and energy must still be expended if we are to attain the level of equity and adequacy required to fulfill the Court's mandate.

The SEEK program is a "tiered" system composed of three distinct but closely related components. These components are:

1. **Adjusted Base Guarantee.** The adjusted base guarantee is composed of a base level of per pupil revenue adjusted by several factors. A base amount (determined by prior average statewide spending levels and full funding of previously enacted programs plus funding for accreditation deficiencies) is established and then adjusted by three factors - - exceptional

This \$346,000 is then spread across the entire student population to display an amount per ADA. In this example, the at-risk adjustment is \$173 (\$346,000 divided by 2000). Adjustments for the other needs components are calculated in a similar manner.

- 2. Tier I. Tier I is the second component of SEEK. This is an optional component that allows local school districts to generate additional revenue of up to fifteen percent (15%) of the adjusted base guarantee. School districts whose per pupil property wealth is less than 150% of the statewide average per pupil property wealth (\$225,000 for FY 1990-91) receive state equalization funds. This component provides that any district whose wealth is less than 150% of the statewide average can generate the same revenue per pupil if they make the same tax effort above the 30 cents required. Districts may participate at any level up to 15%. The decision is one for the local school board, and the levy is not subject to a recall by the voters.
- 3: **Tier II.** Tier II, also optional, is the third component of SEEK. Tier II allows districts to generate additional revenue up to thirty percent (30%) of the amount generated by the adjusted base guarantee and Tier I. These funds are not equalized by the state, and school districts must obtain voter approval in imposing additional taxes within Tier II. Tier II has the effect of placing a cap on the amount of revenue a local school district can raise, thereby maintaining some control over the disparity in per pupil revenues that might be available in local school districts. The disparity in revenues cannot exceed 49.5% (1.15 x 1.30) in districts with similar needs.

The amount of additional funding that can be achieved through Tier II, like Tier I, is dependent upon the adjusted base guarantee. This, in effect, provides

an incentive for every district in the state - - not just the less wealthy - - to be vitally concerned about the base guarantee.

Table 2 illustrates how the SEEK calculations might look in two Kentucky school districts - - one of low per pupil wealth and one of high per pupil wealth.

EXAMPLE OF SEEK C	TABLE 2 ALCULATION FOR TWO S	SCHOOL DISTRICTS
District Characteristics	District A	District B
Per Pupil Assessment	\$39,100	\$341,700
Equivalent Tax Rate	53.9	53.9
SEEK		
Base	\$2,305	\$2,305
At-Risk	\$308	\$92
Exceptional Child	\$370	\$357
Transportation	\$204	\$146
Subtotal	\$3,187	\$2,900
Required Local Effort - \$.30	\$117	\$1,025
State Adjusted Base Per Pupil	\$3,070	\$1,875
Tier I State	\$351	0
Tier I Local	\$74	\$646
Total State Aid Per Pupil	\$3,421	\$1,875

#### PART 2. ANALYSIS OF EQUITY OF THE FUNDING FORMULA

House Bill 940 provides that the Office of Education Accountability (OEA) shall analyze the level of equity achieved by Kentucky's funding system, Support Education Excellence in Kentucky (SEEK). While national attention has been given to the study of equity, consensus on a definition of the term "equity" remains elusive. A firm definition of equity is not essential to begin to explore the What is important, however, is a solid framework for principles of equity. analysis over time. This section of the report begins the development of such a framework. It is also the beginning of the process of providing the General Assembly with information necessary to make decisions about equity in Kentucky and how to insure its delivery. Limitations on time and available data, as well as the fact that only one year has been completed since the implementation of SEEK, make it essential for the reader to understand that this report in no way represents a comprehensive equity study. Much of the framework will be found in the following few pages, but substantial work is yet to be done to provide conclusive and comprehensive evidence of the performance of Kentucky's funding system.

The work of Robert Berne and Leanna Stiefel will be referred to frequently. Although many authors provide extensive knowledge of education financing and equity, the work of Berne and Stiefel is relative to the kind of evaluation anticipated of Kentucky's system. In their book, The Measurement of Equity in School Finance, they express that to build an equity framework, one must address certain problems and make value judgements in four areas: 1) for whom do you expect to provide equity? 2) what services or resources should

be distributed fairly for these groups? 3) what are the different equity principles, or measures, that can be used to determine whether the distribution is fair?

4) how should the degree of equity be measured? (Berne and Stiefel 4-5.)

In attempting to deal with these four principles, input was sought from numerous groups of education leaders in the state. Working in consultation with Dr. John Augenblick, a survey containing probing questions dealing with each of these principles was developed, then used as a base for discussion and eliciting responses (See Appendix A). These responses, as well as suggestions from interested parties, were considered and integrated into the framework of the study.

The group for whom equity is to be provided can be any benefactor or contributor to the system: taxpayers, children, teachers, etc. Given the mandate of the Kentucky Supreme Court in Rose v. the Council for Better Education, Inc. and the subsequent action of the 1990 General Assembly, there can be no doubt that Kentucky's funding system for education attempts to provide equity for children. The framework of this report is developed on that premise. Equity for other groups - - teachers, taxpayers, etc. - - may be important and may be affected by the desire to provide equity for children. Nevertheless, the targeted group for whom equity is to be provided is clearly the children of Kentucky.

Distinguishing what services, resources, or objects are to be distributed is much more difficult to deal with than determining the group for whom equity is to be provided. Services/resources can be categorized as inputs, outputs, and outcomes. Inputs can be identified as any number of basic resources used to educate children: dollars, price-adjusted dollars, number of teachers and their

level of training, course availability and other resources such as the number of library books and the number and quality of textbooks. School facilities can also be included in this group. Outputs include measures of such things as pupil performance, test scores and drop-out rates. Outcomes, or the result of the schooling provided to children, can be measured by such things as earning potential, satisfaction with one's status in life, etc. These objects of distribution offer a variety of ways to examine the system. For the purposes of this report, the key object of distribution will be dollars measured by revenues and expenditures. This by no means is meant to indicate that other categories are of lesser importance. The study of equity in Kentucky will be ongoing and will continually broaden its scope to include other categories.

An analysis by the staff economists of the Legislative Research Commission greatly influenced the decision to use dollars and not price-adjusted dollars. Using the basket of goods concept, the economists concluded that "...there may be off-setting cost differences, thus making price differentials between regions of Kentucky relatively insignificant" (See Appendix B). Since price indices are not available for regions of Kentucky and the price differentials identifiable are insignificant, the use of price-adjusted dollars is meaningless: therefore, the decision to use pure dollars.

Resources such as the number of teachers, textbooks, etc., were not chosen as the key object of distribution for a number of reasons. The measurement of some services and resources is difficult, if not impossible. Judging the quality of textbooks by district, for example, would be a very subjective process. Using the number of teachers would be an unfair measure of distribution since pupil-teacher ratios will no longer be mandated with full

implementation of the Kentucky Education Reform Act (KERA). Other resources present the same kinds of problems. More importantly, though, KERA returns much of the decision making relative to choice and numbers of resources to the local schools and school districts. Recognizing that resources and services represent what the dollars will buy and are representative of much of the input into the learning process, OEA will monitor these for later review for possible links to pupil performance and expansion of the scope of the equity framework.

Facilities as a measure of distribution were also not chosen for a number of reasons. Foremost of these is the fact that while facilities may affect the opportunity afforded children to learn, they would be considered secondary to some of the other measures already discussed. Facilities would also require some subjective measures as to condition, size, program adaptability, etc. The facility surveys currently available do not provide sufficiently detailed information to allow facilities to be included as a measure of distribution. Equality of physical resources, however, was determined by the Circuit Court ruling to be a factor in efficient schooling and improved reporting to allow for appropriate monitoring is recommended.

Pupil performance and the other outputs of the education system, while representing the whole premise for education systems in general and reform specifically, cannot be fairly assessed after one year and offer problems of measurement validity as do outcomes. While some rather narrow data is collected relative to outputs, even less is collected on outcomes, with most being subjective in nature. Using pupil performance as a means of evaluating the system is a key part of KERA. However, it is not a viable measure until new assessment practices are in place.

The determination that the distribution of revenues and/or expenditures (dollars) will provide the framework of study for the equity of Kentucky's funding formula raises a question regarding federal funds. Should federal revenues be addressed when evaluating the equity of the funding system? Many argue for a stronger federal role in the equity issue. Some advocate that the federal government should help achieve equity in the states by providing direct aid. Conversely, there are those who would limit the federal role to one that is much diminished. The impact is greater in Kentucky since this state is one of the highest ranked in the nation in the percentage of federal education funds. Federal revenues affect the total revenues and expenditures of districts, and in some this effect is dramatic. However, while these revenues will be reviewed and observed, for the purpose of analyzing the equity of the system they will not be included. Justification for this lies in the fact that local and state revenues are within the abilities of the General Assembly to control - - state revenues by direct appropriation and local revenues within the restrictions of state law. The state, on the other hand, has little or no control over which districts receive federal funds or to what extent. Therefore, the state cannot be responsible for assuring that federal funds are distributed in an equitable manner. To facilitate the decision to concentrate on state and local funds, much of the analysis will deal with the revenues to local districts instead of expenditures. Revenues, as opposed to expenditures, can more easily be identified by source (state, local or federal).

The third framework development question is what equity principles can be used to determine the fairness of the distribution. Returning to the work of Berne and Stiefel, three equity principles can be applied: 1) equal treatment of

equals; 2) unequal treatment of unequals; and, 3) equal opportunity. These are often referred to as horizontal, vertical and equal opportunity equity (Berne and Stiefel 12-17). Kentucky's funding formula was designed to deal with each of these principles and the framework of study of the equity of the system will also deal with all three.

Each of these three principles offers a different philosophy of equity. Equal treatment of equals, or horizontal equity, would best be represented by a funding system that minimizes the disparity of objects among districts, be it revenue, expenditures or resources. Given the decisions already enumerated in this report, horizontal equity would provide like amounts of funds for each and every student in the Commonwealth irrespective of pupil need or wealth of the district.

Unequal treatment of unequals, or vertical equity, recognizes that not all students are the same and allows for appropriately unequal treatment. An unequal distribution of objects, or dollars for the purposes of this report, is required under this principle. For example, additional dollars may be mandated for special services/programs for the handicapped. The necessity for the differences to be legitimate and justifiable, not just perceived, cannot be overemphasized. National studies recognize numerous differences that are both legitimate and justifiable. Handicapped and bilingual students are two examples.

Equal opportunity provides for nondiscrimination. There can be no variation among such objects as property wealth per pupil, per-capita income, race or sex. "This principle would require that there be no relationship between expenditures, resources, programs or outcomes and per pupil wealth or fiscal

capacity" (Odden, Berne and Stiefel 13). Unlike horizontal equity which provides exactly the same object to each and every child, and vertical equity which provides for appropriate differences, equal opportunity equity provides that the education of the child should not depend upon the wealth of the district in which the child resides. This principle gets to the heart of the Kentucky Supreme Court decision which frequently pointed to the disparities in funding and opportunity due to the wealth of districts. The relationship between spending and wealth is the cycle which Kentucky's funding formula attempts to break.

The final framework development question addresses how the degree of equity is to be measured. While this report deals with some of the appropriate measures, others are left for further work. Horizontal equity can be measured by a number of statistical measures including range, restricted range, federal range ratio, variance, coefficient of variation, Gini coefficient and Atkinson's index. As was expressed earlier, limitations on the availability of data as well as time constraints demand that this initial framework provide limited analysis. For these reasons, most of the analyses in and for this report have been limited to the statistical measures of range and coefficient of variation. The range, or the difference between the highest and lowest per pupil objects, is provided only for a sense of relative comparison since analysis of the range does not deal with all the pupils. The coefficient of variation, on the other hand, includes all the pupils. This measure is the standard deviation divided by the mean. The closer all the parts are to the mean, the closer the coefficient of variation is to zero, or showing smaller deviations. "One way to interpret the coefficient of variation," according to Dr. John Augenblick in his report, An Evaluation of the Impact of Changes in Kentucky's School Finance System, "is to multiply it by the mean; if the resulting product is added and subtracted from the mean, the difference between the two figures is the approximate range of disparity for two thirds of the pupils in the state" (Augenblick 25).

Measures of vertical equity include the correlation coefficient, simple slope, simple elasticity, and simple adjusted relationship. Little work is found in the report on vertical equity. As data becomes available over time, each of the measures will be employed. Measures of vertical equity will be particularly important to Kentucky as weights are added to the funding formula and the existing weights are reviewed and/or adjusted.

Equal opportunity measures employ a combination of the horizontal and vertical measures. The correlation coefficient will be used for the analysis of equal opportunity offered in this report. Dr. Augenblick explains that, "The correlation coefficient ranges between 1.00 and -1.00. A strong positive correlation suggests that as one variable increases, the other does also. A strong negative correlation suggests that as one variable increases the other decreases. A correlation near zero suggests that there is no systematic relationship between the two variables" (Augenblick 30). Equal opportunity is generally expressed as a negative principle, or the absence of a relationship. The Supreme Court decision pointed specifically to the correlation in Kentucky between property wealth and educational opportunities for students; i.e., students in wealthier districts were provided opportunities and inputs not available to students in less wealthy districts. The SEEK program is structured in such a way as to diminish this relationship. It will be essential, therefore, for future analyses to give particular attention to equal opportunity equity.

Before the analysis of the funding system is presented, it is important to discuss "wealth" and its definition. The SEEK formula and the mandates of HB 940 require local participation in the funding of Kentucky public education. Although a variety of local taxes are available to support the system, the most substantive and reliable is property taxes. Wealth for the purposes of funding education is defined as property wealth. While property values are used extensively on the national level, other recognized values are gaining attention. Other means of measuring wealth may at some time be viable in Kentucky. For example, per capita income may have some merit. However, due to the numerous independent districts in Kentucky which lie within county borders, per capita income is not readily accessible data. For this reason, the OEA will undertake a project during the 1992-94 interim to collect per capita income data by individual school district. An analysis of the relationship of property wealth to per capita income will be available for review prior to the 1994 Regular Session of the General Assembly.

To analyze the equity of Kentucky's funding system, it is essential to distinguish each component and deal with these components separately as well as collectively. Vital to the system is the revenue generated through local taxation. For the purposes of funding education, equivalent tax rates (ETR) are computed. KRS 160.470(12)(a) defines equivalent tax rate as "...the rate which results when income collected during the prior year from all taxes levied by the district for school purposes is divided by the total assessed value of property plus the assessment for motor vehicles certified by the Revenue Cabinet." Accompanying the efforts of the General Assembly in reforming education were the efforts to reform Kentucky property taxes. New statutory provisions include a quadrennial review of all properties in the Commonwealth, a mandate that all

properties be assessed at 100% fair market value and rigid performance standards for local Property Valuation Administrators. The disparities noted by the Court in property wealth were compounded by the level of effort of wealthier districts. Not only did these districts have higher property wealth per pupil, but also were taxing at higher rates. Table 3 shows that in 1989-90 the lowest wealth quintile had an average property wealth per pupil of \$73,100 and an average ETR of 32.92 cents per \$100 of assessed property. The highest wealth quintile had property wealth of \$281,361 per pupil with an average ETR of 68.79 cents per \$100. The school district making the least effort was taxing at 22.9 cents per hundred, while the highest was \$1.12 per hundred, a range of 89 cents. The statistical measure of the disparity (the coefficient of variation) was .436, representing significant variation in the effort of the districts. As noted previously, local districts responded to the actions of the General Assembly by making substantial new local effort. In terms of equivalent tax rates, the lowest wealth quintile increased the average ETR to 50.31 cents, an increase of nearly 53%. While the ETR increased in every quintile, the difference between the average of the highest and the lowest wealth quintiles narrowed to 20.31 cents per hundred from the 1989-90 difference of 35.87 cents. The range for the state was reduced to 81.9 cents; the coefficient of variation to .227, or almost half the 1989-90 level.

The massive changes mandated in property valuations, while producing increased assessments of nearly 10%, also increased the disparity. The range of property wealth per pupil was \$302,569 in 1989-90 with a coefficient of variation of .480. The range in 1990-91 increased to \$342,144 with an increased coefficient of variation of .482. Increased disparity in property wealth per pupil is a negative indicator in the analysis of equity. This disparity is beyond the

TABLE 3
PUPIL WEIGHTED AVERAGES FOR EQUIVALENT TAX RATES
BY WEALTH QUINTILE

1990.91	ond Third Fourth Highest Statewide			47 40 32 5	2053 110 770 104 004 110 441 500 401	111.011 +00.1-01 01/.01
	Lowest Second			52	111 145 115 053	77 24-1-1
	Highest Statewide			9	100 040 - 600 464	120,040 003,434
1989-90	Third Fourth			33	310 541 940 541 134 141	10,000
				43 40		
	Lowest Second			54 4		(13,617 110,
	•	Onintile Characteristics	Number of	Districts	Average Daily	Attendarice

48.99 5.86 54.85 93.6% 6.05 70.62 64.57 95.7% 48.5 53.72 5.22 96.2% 45.86 4.24 50.1 95.5% 41.86 7.15 49.02 93.1% 87.5% 43.7 6.61 50.31 39.46 A. A. 43.6 96.1% 63.94 4.85 68.79 96.9% 39.18 96.9% 44.04 4.86 32.33 34.99 98.2% 2.67 31.02 35 50 50 95.4% 29.41 32.92 93.0% 3.51 Equivalent Tax Rates (in cents) Current Operations **Collection Rates** Debt Service TOTAL

\*1990-91 Collection Rates for eight districts were not reported as of 12/2/91. For these districts, the 1989-90 Collection Rate was used.

control of the state if it is the result of real economic growth. However, fair assessment is a critical part of assuring equity and should be monitored closely.

The General Assembly provides local school districts with options for types of taxes to be levied, resulting in an equivalent tax rate. Since the ETR is determined, in part, by the total taxes collected in the prior year for school purposes, collection rates are of importance. Table 3 shows rates of collection for 1989-90 and 1990-91 by wealth quintile. While property wealth per pupil increased in each quintile, collection rates decreased. A decrease in collection rates has at least two implications for local school districts. First, in the year of collection, revenues do not meet anticipated levels. Secondly, the ETR for the following year may need to be increased to compensate for the reduced revenue. The impact of collection rates on local school districts should be monitored closely.

The role of tax rates and property assessments in Kentucky's funding formula, SEEK, was explained in Part 1 of this report. The SEEK calculation begins with a base amount, \$2305 per pupil in 1990-91, and is the component which addresses horizontal equity. This amount is guaranteed for every student, irrespective of need or wealth, through a combination of state and local revenue. The base amount is then adjusted for exceptional children, at-risk pupils and transportation. These components added to the base then comprise the adjusted base guarantee.

An ETR of 30 cents is required of every school district. The revenue generated through this 30 cent required local effort is applied to the adjusted base guarantee, averaging \$513 per pupil in 1990-91. The wide disparity in

property wealth per pupil noted above is expressed in dollars in the required local effort. Table 4 shows the lowest wealth quintile raising an average of \$239 per pupil with the 30 cent required local effort. In sharp contrast is the highest wealth quintile showing an average of \$925 per pupil for the same 30 cent effort. The coefficient of variation is .482, an expression of significant disparity.

The state contribution to the adjusted base guarantee in 1990-91 averaged \$2419 per pupil as shown on Table 4. The SEEK formula was designed to provide more state assistance to districts with lower property assessments and less state aid to those with the ability to raise more locally due to higher property values. The lowest wealth quintile received an average of \$2830 per pupil from the state for the adjusted base guarantee, while the highest wealth quintile received an average of \$1997. This clearly represents a positive digression from the relationship between wealth and resources. The correlation coefficient between the adjusted base guarantee and property wealth per pupil was -.86. Equal opportunity equity is generally expressed as a negative principle, or the absence of a relationship. This negative indicator (-.86) shows that the wealthy districts received less state aid in the SEEK base than the less wealthy. This compares to a correlation coefficient of .04 between the state Foundation and the wealth of school districts in 1989-90.

The second level of funding provided by SEEK, Tier I, permits districts to generate additional revenue of up to 15% of the adjusted base guarantee. In 1990-91, 169 of Kentucky's 176 districts participated to some degree in Tier I. Limited by a state appropriation level of \$20 million, the funds were distributed pro-rata to eligible districts. State funds averaged \$35 per pupil. While this \$35 seems relatively low, it is important to keep in mind that not all districts were

TABLE 4
1990-91 PUPIL WEIGHTED AVERAGES
FOR SELECTED SEEK COMPONENTS

9	19	D.	.9	9
	6	99	990	990-9

	Lowest	Second	Third	Fourth	Highest	Statewide
Quintile Characteristics						
Number of Districts	<b>52</b>	47	40	32	5	
Average D <del>aily</del> Attendance	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth Per Pupil	\$79,532	<b>\$116,116</b>	\$150,964	\$197,468	\$308,474	\$171,127
Required Local Effort (.30)	\$239	\$348	\$453	\$592	\$925	\$513
Coeff. of Var.	.171	.092	.076	.128	.105	.482
State Adjusted SEEK Base	\$2,830	\$2,595	\$2,433	\$2,249	\$1,997	\$2,419
Coeff. of Var.	.051	.040	.044	.056	.064	.128
Local Tier I	\$116	\$153	\$236	\$337	\$438	\$256
Coeff. of Var.	.391	.513	.360	.223	.021	.529
State Tier I	\$27	\$60	\$60	\$28	\$	\$35
Coeff. of Var.	1.570	.683	.365	.682	.000	1.060
Local Tier II	\$10	\$17	\$20	\$48	\$489	\$120
Coeff. of Var.	5.380	3.730	3.100	2.330	.437	1.860
State Total SEEK	\$2,806	\$2,649	\$2,493	\$2,299	\$2,187	\$2,487
Coeff. of Var.	.044	.043	.044	.050	.058	.101

eligible for state funds due to property wealth. In addition, the pro-rata distribution amounted to about 44% of the total needed. Local funds generated under Tier I averaged \$256 per pupil, ranging from \$0 to \$442 per pupil. It is important to note that while state Tier I funds were distributed pro-rata, local districts received the full amount of local revenue generated by the Tier I levy. Table 4 shows average revenues for Tier I for both state and local effort by wealth quintile. As would be expected, the lowest quintile only generated an average of \$116 per pupil locally while the highest quintile shows an average of \$438. Conversely, state revenue for Tier I averaged \$27 in the lowest quintile, \$60 in both the second and third, and \$28 in the fourth, with no Tier I state revenue in the highest quintile. The coefficient of variation for state Tier I funds is 1.06, showing extreme disparity as would be expected since some districts are not eligible for Tier I and others may choose to participate at any level. The wide disparity of Tier I, particularly the disparity among the eligible districts, may be a problem in the future. Should the lack of effort in Tier I directly result in underperforming students, Kentucky may need to adjust the required effort upward and the voluntary effort downward. To this point, however, the seriousness of the problem is not such that a change is recommended.

The third level of SEEK is Tier II. No state funds are provided in this level, but local districts are permitted to raise additional revenue up to 30% of the total of the adjusted base and Tier I. Only 57 districts participated in Tier II in 1990-91 and those districts raised only \$120 per pupil on average. It is important to note that none of the 57 districts in Tier II participated due to a vote of the people but rather participated due to an existing taxing authority. Table 4 shows the wide disparity in Tier II with a coefficient of variation of 1.86. The fact that the highest wealth quintile participated at an average of \$489 per pupil with

the lowest quintile raising only \$10 per pupil in Tier II causes concern for the continued effect of this disparity over time. However, since all the participating districts had existing authority, and the education reform effort in Kentucky sought to bring all districts to a higher level and not level downward those making the highest effort, the situation does not warrant addressing at this time, but will be continually monitored.

The analysis of the performance of the system through the Tier II level is vital, but it is important to also note other restrictions placed on the system. Coupled with the limited appropriation for Tier I was a guarantee in 1990-91 that no district would receive less than 8% in new funds through the SEEK program nor more than 25% above the 1989-90 level. These restrictions apply only to funds generated by the SEEK formula. Table 5 demonstrates that the lower wealth quintiles received on average \$2806 per pupil in state funds through the SEEK formula, including Tier I. The higher wealth quintiles averaged \$2187 per pupil in state revenues from SEEK. The range was \$1346. This compares to a range of \$256 in 1989-90. This indicates very favorably that the system performed as designed and has begun to address the problems which created the situation prompting the court case.

Analyzing how the system would have performed without restrictions presents a completely different view. Had the state portion of Tier I been fully funded with the limitations of a minimum and maximum, the state adjusted base plus Tier I in the lowest wealth quintile would have averaged \$2813 per pupil and the highest would have averaged \$2187, almost no change in these two quintiles. Table 5 shows the modest gains that would have been experienced in

TABLE 5
1990-91 PUPIL WEIGHTED AVERAGES
SEEK PERFORMANCE CHARACTERISTICS

1990-91

			1990-9	1		
	Lowest	Second	Third	Fourth	Highest	Statewide
Quintile Characteristics						
Number of Districts	52	47	40	32	5	
Average Daily						
Attendance	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth Per Pupil	\$79,532	<b>\$116,116</b>	\$150,964	\$197,468	\$308,474	<b>\$171,127</b>
State Adjusted Base Plus Tier I	\$2,806	\$2,649	\$2,493	\$2,299	\$2,187	\$2,487
State Adjusted Base Tier I Fully Funded With Minimum & Maximum	\$2,813	\$2,679	\$2,544	\$2,321	\$2,187	\$2,509
State Adjusted Base Tier I Fully Funded No Minimum or Maximum	\$3,052	\$2,744	\$2,547	\$2,302	\$1,997	' \$2,527

the other quintiles. Obviously, the impact of the minimum and maximum have diminished the impact that full Tier I funding would have had on the system.

Alternatively, full Tier I funding, coupled with no minimum or maximum increases in SEEK funds, would have had quite a different impact. This would essentially mean letting the system perform as designed. Given those parameters, the lowest quintile, as evidenced in Table 5, would have averaged \$3052 per pupil, the highest \$1997. This difference of \$1055 between the lowest and the highest wealth quintiles compares to the \$618 difference of actual 1990-91 performance.

As an accompaniment to the SEEK program, KERA established the Facilities Support Program of Kentucky (FSPK). This program is to provide additional fiscal support for school construction and has as its goal the more equitable distribution of school facilities among the school districts. The program works in conjunction with the School Facilities Construction Commission (SFCC) which has been in operation for the past six (6) years.

The School Facilities Construction Commission assists local school districts in school construction projects by providing a portion of the debt service. The amount of debt service provided by the state through this program is determined by the needs of the individual district and, of course, the level of appropriation by the General Assembly.

The FSPK requires that local school districts levy an equivalent tax rate of at least five cents in order to participate in FSPK and SFCC. The five cent levy (levied in addition to the local required effort of thirty cents) is equalized at 150%

of the average per pupil property wealth (the same level of equalization as Tier I). Like Tier I, FSPK is designed to guarantee that districts receive the same revenue (combined state and local) for a similar levy - - without regard for the property wealth of the district. Once the local school district commits the five cent FSPK levy to debt service, it is equalized by the state. Districts may levy this five cents and not commit it to debt service. In this situation, no state equalization is provided.

During 1990-91, 174 of the 176 local school districts levied the five cents required by FSPK. Of this number, 98 received equalization funding. The 1990-91 state appropriation of \$10 million was distributed by a pro-rata formula. The pro-rata distribution was approximately 80% of the calculated amount.

Still at issue are the categorical programs outside the SEEK calculation. A study of the existing weights applicable to SEEK (handicapped children and at-risk pupils) as well as new weights for categorical programs, was to have been conducted by the Kentucky Department of Education by October 1, 1991. However, this study has been delayed. Therefore, the extended school services program, the pre-kindergarten program, family resource centers, gifted and talented and other categoricals remain outside the funding formula. Categorical programs generally adversely affect the equity of a system. Therefore, it is recommended that categorical and/or pilot programs remain as such for no more than four (4) years. After this period of time, these programs should be assigned a weight and become a part of the SEEK program calculation or they should be eliminated.

The total state funds available to local school districts are comprised of the SEEK adjusted base guarantee, Tier I and the categorical programs. Table 6 provides a review of these totals for 1989-90 compared to 1990-91 by wealth quintile. The average state revenue increased from \$2228 to \$2682 per pupil as did the coefficient of variation which increased from .061 to .109. These indicators provide a positive view of the performance of the funding system in the first year. As stated earlier, the essence of the new system is to provide more state dollars per pupil to the least wealthy districts, actually increasing the disparity in the distribution of state funds. Table 6 also shows positive results when comparing combined state and local resources. The difference between the lowest and highest wealth quintiles in 1989-90 was nearly \$1500, compared to \$1068 in 1990-91. The reduction in the coefficient of variation from .200 to .129 shows that the disparity in total state and local dollars narrowed, a goal of the funding system.

Federal funds, while not controlled by the funding formula and not considered in Kentucky's equity framework, do effect the total resources of the districts. Table 6 shows that in 1989-90 the lowest wealth quintiles received more federal funds, on average, than the higher wealth quintiles, narrowing the disparity between the quintiles in total resources from \$1500 to just under \$1200. However, federal funds do not follow the same pattern for 1990-91. The average for the highest quintile increased significantly from \$276 per pupil to \$478 per pupil. Nonetheless, the difference between the highest and lowest wealth quintiles also narrowed to \$961 compared to the \$1200 for combined state and local sources. The coefficient of variation for total revenue was reduced from .170 in 1989-90 to .131 in 1990-91. Efforts at continuing to reduce the disparity will ensure a more equitable financing system in the future.

TABLE 6
PUPIL WEIGHTED AVERAGES FOR REVENUE
BY WEALTH QUINTILE

			1989.90						1990.91			
	Lowest	Second	Tri d	Fourth	Highest	Statewide	Lowest	Second	Pird	Fourth	Highest S	Statewide
Quintife Characteristics												
Number of Oistricts	54	43	40	g	ထ		52	47	40	32	ĸ	
Average Daily Attendance	113,817	116,108	112,657	106,026	120,846	569,454	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth Per Pupil	\$73,100	1\$ 759,700 \$ 107,637 \$1	\$140,804	40,804 \$180,740 \$281,361	\$281,361	\$157,814	\$79,532	\$116,118	\$150,964 \$197,468	000000000000000000	\$308,474	\$171,127
Local Revenue Per Pupil	\$290	\$436	\$587	\$ 80	\$1,985	\$851	\$397	\$588	\$818	\$1,145	\$2,162	\$1,028
Coeff. of Var.	.525	.376	.328	.299	.167	.779	.271	.229	194	.230	20	.639
State Revenue Per Pupil	\$2,352	\$2,270	\$2,221	\$2,176	\$2,125	\$2,228	\$3,045	\$2,859	\$2,686	\$2,470	\$2,348	\$2,682
Coeff. of Var.	.056	.048	.045	.050	.048	.061	.056	.052	.054	.061	.058	.109
Local-State Per Pupil	\$2,642	\$2,706	\$2,808	\$3,070	\$4,110	\$3,079	\$3,442	\$3,447	\$3,505	\$3,615	\$4,510	\$3,710
Coeff. of Var.	.079	.083	.072	660°	980.	.200	.047	.062	.059	.082	.063	.129
Federal Revenue Per Pupil	\$545	\$394	\$321	\$289	\$276	\$365	\$584	\$423	\$370	\$314	\$478	\$435
Coeff. of Var.	.287	.261	.289	.538	.173	.420	.309	.278	.279	.508	.354	.401
Total Revenue Per Pupil	\$3,187	\$3,099	\$3,129	\$3,359	\$4,386	\$3,444	\$4,026	\$3,871	\$3,874	\$3,929	\$4,987	\$4,145
Coeff. of Var.	.081	.083	.067	4	.088	.170	.062	.072	890°	0.09	.084	<u>.</u>

The previous discussion of total funds speaks to funds which either flow to local districts from the state or funds generated locally. A third source of funds not yet addressed are those funds provided by the state for local school districts, e.g. teachers retirement, health insurance, and debt service for school construction. Health insurance is available for all certified personnel and all noncertified personnel who are employed for eighty (80) or more hours per month. In 1990-91, the state paid health insurance premiums for approximately 69,000 certified and noncertified employees. The state does not control the number of these employees, leaving that decision to the local districts. The implications for equity, or inequity, are apparent. Teacher's retirement presents an even greater problem. The employer contribution is paid in total by the state for all certified employees. The equity issue lies in the fact that this contribution is paid regardless of the number of employees of a district and regardless of the salary paid. Table 7 shows the seriousness of the disparity. While the state is contributing an average of \$289 per pupil in the lowest wealth quintile, it is contributing \$353 in the highest quintile. This relationship is inverse to the desirable relationship established by the SEEK formula. It is recommended that a detailed study of the issue of fringe benefits (health and life insurance, retirement for certified and noncertified, and payments for medicaid insurance) be conducted prior to the 1994 Regular Session of the General Assembly with appropriate recommendations for the development and implementation of a more equitable system.

TABLE 7
1990-91 PUPIL WEIGHTED AVERAGES TEACHER'S RETIREMENT

1990.91

			1990-9	11		
	Lowest	Second	Third	Fourth	Highest	Statewide
Quintile Characteristics						
Number of						
Districts	52	47	40	32	5	
Average Daily						
Attendance	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth						
Per Pupil	\$79,532	\$116,116	\$150,964	\$197,468	\$308,474	\$171,127
Employers' Match						
Teacher's Retirement	\$289	\$293	\$288	\$305	\$353	\$306
State Revenue						
with Teacher's Retirement	\$3,334	\$3,152	\$2,974	\$2,776	\$2,701	\$2,988
						0.004
Coeff. of Var.	0.054	0.052	0.052	0.058	0.049	0.094

#### PART 3. SPENDING IN LOCAL SCHOOL DISTRICTS

A cornerstone of the Kentucky Education Reform Act was the return of significant decision making to local schools and school districts, including to a great extent how money is spent. This section of the report provides an overview of spending patterns for 1989-90 and 1990-91 with particular attention to personnel expenditures.

The 1990 General Assembly appropriated considerable new state dollars for elementary and secondary education. Table 8 indicates an additional \$358 million was distributed to or for local school districts in 1990-91, an increase of 22.9% over the previous year. Equally impressive was that local districts responded by raising local taxes by an average of almost 26%, increasing local revenue from \$484 million to \$585 million.

Reviewing expenditures of districts is best facilitated by narrowing the scope of the review to current operating expenses. Current operating expenses best demonstrate spending patterns in districts during a particular year, such as administration, instruction, transportation, maintenance, etc. Other expenditures will be reviewed separately. Table 9 displays patterns of spending for the years 1989-90 and 1990-91 by wealth quintile. The significance of the amount of new money is apparent in that the statewide average for total current expenses rose from \$2898 per pupil in 1989-90 to \$3376 in 1990-91. Significant dollar changes are noted in instruction, with the lowest wealth quintile spending \$1894 per pupil in 1989-90 and \$2306 in 1990-91. Statewide average expenditures for maintenance increased by more than 13%, from an average of \$105 to \$119.

TABLE 8
STATE AND LOCAL REVENUE (IN THOUSANDS) PROVIDED
FOR KENTUCKY SCHOOL DISTRICTS IN 1989-90 AND 1990-91

				YEAR CHANGE
REVENUE SOURCE	<u>1989-90</u>	<u>1990-91</u>	AMOUNT	PERCENT
STATE SOURCES				
Formula	\$1,179,143	\$1,394,791	\$215,648	18.3%
Capital/Debt*	\$56,091	\$67,284	\$11,193	20.0%
Grant Programs**	\$33,681	\$65,035	\$11,267	93.1%
Health/Life Ins.	\$84,689	\$95,965	\$11,276	13.3%
Teacher Retirement	\$168,398	\$224,808	\$56,410	33.5%
Escrow Accounts (Rewards,Technology)		\$30,000	\$30,000	100.0%
School Facilities Construction Comm.	\$39,293	\$41,280	\$1,987	5.1%
Total (All State)	\$1,561,295	\$1,919,163	\$357,868	22.9%
Local Sources Total	\$484,475	\$585,287	\$110,812	20.8%
State and Local Total	\$2,045,770	\$2,504,450	\$458,680	22.4%

<sup>\*</sup>Includes capital outlay allotment plus Facilities Support Program of Kentucky funds.

<sup>\*\*</sup>Grant programs in FY1989-90 include such programs as gifted/talented, remediation, in-service training, writing grants, etc. Grant programs for FY1990-91 include those continued from FY1989-90 plus new programs such as extended school services and pre-kindergarten. Funds for the operation of Kentucky Department of Education, the Kentucky School for the Deaf, the Kentucky School for the Blind or Kentucky Educational Television are not included in either year.

TABLE 9
PUPIL WEIGHTED AVERAGES FOR EXPENDITURES
BY WEALTH QUINTILE

			1989.90						1990-91			
	Lowest	Second	72 12 13	Fourth	Highest	Statewide	Lowest	Second	Third	Fourth	Highest	Statewide
Quintile Characteristics Number of Districts Average Daily		<b>3</b>	40	8	9	1.00	25	47	40	32	ro.	22
Attendance Property Wealth Per Pupil	114,817	110,108 \$107,837	\$140,804	\$180,740	120,646 \$281,361	\$157,814	\$79,532	#116,116	\$150,964	\$197,468	\$308,474	\$171,127
Administration	\$86	\$79	\$70	\$77	**	98\$	96\$	\$98	\$88	\$86	\$129	\$100
Instruction	\$1,894	\$1,933	\$1,992	\$2,158	\$2,714	\$2,145	\$2,306	\$2,313	\$2,379	\$2,466	\$3,006	\$2,497
Attendance	\$24	\$24	\$21	\$20	\$24	\$	\$26	\$27	\$25	\$21	\$27	\$25
Health	\$	\$3	~	**	\$0 ₽0	4	23	*	\$	\$	\$6	\$
Transportation	\$24	\$ 195	\$194	\$169	\$226	\$200	\$272	\$253	\$240	\$210	\$257	\$247
Operation of Plant	\$190	\$194	\$201	\$218	\$340	\$230	\$217	\$211	\$225	\$228	\$364	\$250
Maintenance	\$87	\$	\$30	\$109	\$152	\$105	\$108	\$107	\$135	\$112	\$	\$119
Fixed Charges	\$100	\$86	\$60	\$98	\$145	\$106	\$130	<b>⇔</b>	\$123	\$125	\$164	\$132
Total Current Expenditures	\$2,592	\$2,604	\$2,670	\$2,847	\$3,723	\$2,898	\$3,162	\$3,131	\$3,220	\$3,252	\$4,084	\$3,376

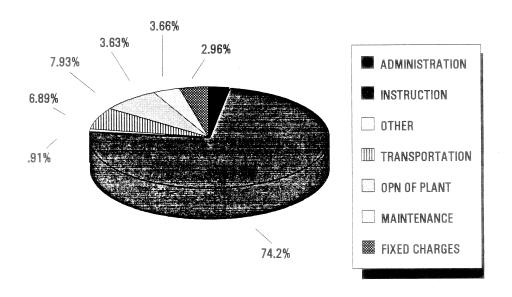
Transportation also increased dramatically, from \$200 in 1989-90 to \$247 in 1990-91, or 23%.

These additional dollars can be represented differently by reviewing the percent of total current expenses for each spending category for 1989-90 and 1990-91 (See Chart 1). These pie charts show that although many additional dollars were pumped into the system, spending patterns did not change very much. While administration remained exactly the same at 2.96%, instruction dipped slightly from 74.02% to 73.98%. Significant increases in the percentage of total current expenses for transportation and fixed charges are also noted.

Since salaries for personnel comprise more than 65% of local districts budgets, it is important to take a closer look at the changes in this category in the first year of KERA. Average teacher salaries were addressed by the Court as being disparate. Table 10 shows average 185 day and total salaries for certified personnel. Total salaries include additional pay for extended service as well as additional duty. The difference between the highest and lowest wealth quintiles in 1989-90 was \$4700 for average 185 day salaries. This difference was reduced to \$4375 in 1990-91. The disparity grows as total salaries are reviewed. Table 10 shows the difference between the lowest and highest wealth quintiles in 1989-90 for total salaries was \$5124, compared to the \$4700 difference in 185 day salaries. The disparity in total salaries in 1990-91 was reduced to \$4880. Although the reduced diaparity is a positive outcome of the efforts of SEEK to equalize spending, the disparity remains significant.

Table 10 also contains data relative to the rank of certified personnel by wealth quintile. Rank 1 personnel are those with an approved four-year college

CHART 1
CURRENT EXPENSE BY EXPENDITURE CATEGORY
1989-90



1990-91

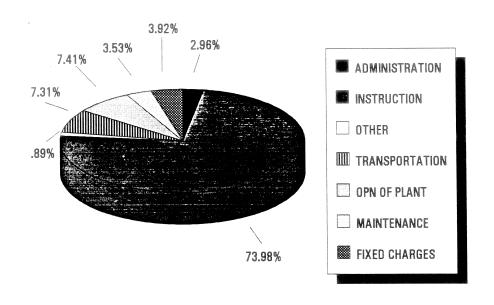


TABLE 10
PUPIL WEIGHTED AVERAGES FOR CERTIFIED PERSONNEL CHARACTERISTICS
BY WEALTH QUINTILE

			989	- C					1990-91	œ,		
	Lowest	Second	Pi.	Fourth	Highest	Statewide	Lowest	Second	Third Fr	Fourth	Highest	Statewide
Quintile Characteristics	ristics											
Number of Districts	54	43	40	33	9		52	47	40	32	មា	
Average Datty Attendence	113,817	116,108	112,657	106,026	120.846	569,454	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth Per Pupil	\$73,100	\$73,100 \$107,837	\$140,804	\$180,740	\$281,361	\$157,814	\$79,532	\$116,116	\$150,964 \$197,468	\$197,468	\$308,474	\$171,127
Average Salary	\$24,530	\$24,899	\$25,483	\$26,071	\$29,230	\$26,078	\$27,720	\$27,848	\$28,086	\$28,896	\$32,095	\$28,948
Average Total Salary	\$26,115	\$26,563	\$27,188	\$27,895	\$31,239	\$27,837	\$29,463	\$29,743	\$29,959	\$30,831	\$34,343	\$30,889
Rank 1	34.3%	34.2%	34.2%	32.1%	28.8%	32.7%	34.2%	34.9%	34.2%	32.1%	30.2%	33.1%
Rank 2	41.9%	44.3%	46.6%	48.4%	53.0%	46.9%	42.3%	44.3%	47.1%	49.1%	54.1%	47.4%
Rank 3	23.0%	20.6%	18.6%	18.9%	16.8%	19.6%	23.3%	20.4%	18.7%	18.5%	16.3%	19.4%

degree, Rank 2 requires a master's degree, while Rank 3 consists of those personnel with a master's degree plus an additional thirty hours of approved graduate work. While disparities do exist among the quintiles, it is interesting to note that the highest wealth quintile has the lowest percentage of Rank 1 personnel at 30.2%. Inverse relationships exist between the lowest and highest wealth quintiles when comparing Rank 2 and Rank 3 personnel. Certified personnel in the highest wealth quintile are comprised of 54.1% Rank 2 and 16.3% Rank 3 while the lowest quintile has a lesser percentage of Rank 2 than the highest wealth quintile, 42.3%, and a greater percentage of Rank 3 than the highest wealth quintile at 23.3%.

Table 11 shows that in addition to increasing the salaries for certified personnel, the average number of certified personnel also increased. The average number of school administrators increased slightly from 3.00 to 3.07 per thousand students. Each of the other categories, however, showed more significant increases: school guidance counselors increase from 1.83 to 2.00 per thousand; librarians from 1.96 to 2.00; central office staff from 2.99 to 3.03; and, teachers increased by 1.4 from 63.2 to 64.6. For the purposes of this table, school administrators are defined as principals and assistant principals. Guidance counselors are defined as those who actually are assigned to a particular school. This is somewhat different than how guidance counselors are presented in other documentation in Kentucky. However, it was determined that particular attention should be given to the number of "school" guidance counselors. Librarians are also those assigned to schools. This table refers to Central Office Staff, which is a category comprised of a number of different personnel, but who are all actually assigned to a central office. These personnel include superintendents, assistant superintendents, directors of transportation,

TABLE 11
PUPIL WEIGHTED AVERAGES FOR CERTIFIED PERSONNEL PER 1000 PUPILS
BY WEALTH QUINTILE

			989-90						1990-91			
	Lowest	Second	Tric	Fourth	Highest	Highest Statewide	Lowest	Second	Third	Fourth	Highest	Statewide
Quintile Characteristics												
Number of Districts	54	43	43	33	B		52	47	40	32	to.	
Average Daily Attendance	113,617	116,108	112,657	106,026	120,846	569,454	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth Per Pupil	\$73,100	\$73,100 \$107,837 \$	140,804	\$180,740	\$281,361	\$157,814	\$79,532	\$116,116	\$150,964	\$197,468	\$308,474	\$171,127
School Administrators	3.26	(77)	2.97	2.95	2.86	ന	3.35	3.17	3.03	က	2.8	3.07
School Guidance Counselors	1.46	1.63	1.67	1.82	2.52	1.83	1,64	1.83	1.98	1.99	2.53	2
Librarians	2.06	2.02	1.93	<sup>هس</sup> ي	<u>~</u> &	1.96	2.17	2.04	1.97	6.00	1.84	2
Central Office Staff	3.00	2.91	29.	2.5	3.65	2.99	3.17	3.02	2.72	2.43	3.76	3.03
Teachers	63.8	62	60.97	62.87	66.3	63.2	66.18	64.31	63.21	63.47	65.87	64.6
TOTAL	73.00	75	2	72.1	77.2	2	76.51	74.37	72.91	72.87	76.8	74.7

coordinators, supervisors and numerous other certified personnel.

While the average number of personnel in each category is higher, other significant information can be gleaned from Table 11. In the category of school administrators, the lowest quintile has the highest average at 3.35 per thousand pupils in 1990-91, while the highest quintile has the lowest average, 2.8. Part of this difference can be attributed to the fact that the lowest wealth quintile has 52 school districts in 1990-91 while the highest wealth quintile has only five districts. School guidance counselors increase from left to right, or from the lowest wealth quintile to the highest. But perhaps more significant is the fact that the highest quintile showed almost no gain in guidance counselors while the lower four all showed relatively significant increases. Librarians decrease from lowest to highest quintile but comparing 1989-90 to 1990-91 shows consistent gains throughout the quintiles. Teachers per thousand pupils declined slightly in the highest quintile but made considerable gains in each of the other four.

Salaries of classified personnel are not presented as a part of this report. However, changes in the numbers of classified personnel in selected categories are shown in Table 12. Aides include aides to teachers, nurses, librarians and administrators. Lunchroom personnel include managers and workers. The custodians/maintenance category includes custodians, maids, maintenance personnel and school plant supervisors/operators. Finally, transportation includes bus maintenance, drivers and transportation supervisors. This table indicates that the average number of classified personnel per thousand pupils increased in every category statewide and in nearly every category by quintile.

The numbers of certified and classified personnel were reviewed for this report in a manner consistent with other recent reviews of Kentucky's system.

PUPIL WEIGHTED AVERAGES OF SELECTED CLASSIFIED PERSONNEL PER 1000 PUPILS BY WEALTH QUINTILE TABLE 12

			1989.90						1990-91			
	Lowest	Second	<b>12</b>	Fourth	Highest	Statewide	Lowest	Second	Hire.	Fourth	Highest S	Statewide
Ouintille Characteristics												
Number of Districts	54	#3	40	æ	9		52	47	4	32	ئى ئ	
Average Daily Attendance	113,817	116,108	112,657	106,026	120,846	569,454	111,145	116,953	118,778	104,084	118,441	569,401
Property Wealth Per Pupil	\$73,100	\$107,837	\$140,804	\$180,740	\$281,361	\$157,814	\$79,532	\$116,116	\$150,964	\$197,468	\$308,474	\$171,127
Aides	10.3	9.0	9.6	6000 Q 6000	15.3	<u> </u>	12.3	12.1	12.0	<u></u>	16.8	13.0
Secretaries	R.	S.	R.	5.9	9.6	6.4	5.7	5.4	Ģ	6.1	6.6	6.7
Lunchroom Personnel	<u></u>	13,4	<u></u>	12.7	<u> </u>	12.1	14.2	3.4	12.7	12.2	8.8	12.2
Custodians/ Maintenance	<u>.</u>	7.8	7.7	8,4	10.0	8.7	9.6	8.0	7.7	8.5	8.6	8.7
Transportation	14.8	13.7	12.5	10.7	8.5	12.0	15.7	14.3	12.4	10.9	8.9	12.4
Other	0.7	<b>—</b>	<u>_</u>	decore (L.)	4.7	deren.	2.1	1.2	1.2	m.	ro,	2.3
TOTAL	54.5	ru Ge	<b>4</b> 6.	49.0	56.8	27.7	25 25	<b>5</b>	52	20.5	59.5	5 5 7

personnel per 1000 pupils. Future studies will include a review of personnel recognizing differences in district characteristics, such as size, student population and services offered (food services, transportation, etc.).

Total salaries for certified and classified personnel combined are found in Table 13 by expenditure category. Average salaries increased by 15% from 1989-1990 to 1990-91, with administrative and instructional salaries increasing at about the statewide average. The significant increase of 27.85% in health services can most likely be attributed to the emphasis placed on this area by KERA. More significantly, however, is that of the additional \$459 million (state and local) made available to local districts in 1990-91, increases in salaries and/or staff consumed over \$200 million, or 43.6% of the new money.

TABLE 13
1989-90 AND 1990-91
TOTAL SALARIES BY EXPENDITURE CATEGORY

	1989-90	<u>1990-91</u>	% Change
Administration	\$36,565,075	\$42,395,723	15.95%
Instruction	\$1,160,471,233	\$1,335,240,192	15.06%
Attendance	\$11,981,500	\$13,307,202	11.06%
Maintenance	\$23,329,190	\$26,246,272	12.50%
Health Services	\$1,381,241	\$1,765,965	27.85%
Transportation	\$59,003,190	\$70,687,742	19.80%
Operation of Plant	\$56,963,562	\$63,533,406	11.53%
TOTAL SALARIES	\$1,349,694,991	\$1,553,176,502	15.08%

### PART 4. TRANSPORTATION FUNDING IN KENTUCKY

Local school districts in Kentucky spent more than \$140 million on pupil transportation in 1990-91. This represents an increase of nearly 24% over the previous year. Chart 2 shows categories of transportation spending as a percent of total transportation costs for the years 1989-90 and 1990-91. Salaries comprise more than half the spending in both years, decreasing as a percentage of the total slightly in 1990-91. Most noticeable on Chart 2 is the increase in the replacement of vehicles and other equipment, from 16.5% of total spending to 19.5%. The availability of new money due to the reform efforts increased the districts' ability to purchase new buses.

Significant dollar increases in the major categories of spending in transportation are best represented by the fact that salaries increased by almost 20%, from \$59 million to \$70.7 million. Not only did bus replacement increase as a percentage of total spending, actual dollar spending increased by 46%. In 1989-90, local districts spent approximately \$18.5 million on bus replacement jumping to almost \$27 million in 1990-91.

Due to the significance of the amount of money spent on pupil transportation and the lack of a recent review of the funding formula, the 1990 General Assembly per KRS 7.410 mandated that the Division of Finance of the Office of Education Accountability conduct a review of the pupil transportation funding formula. To assist in this review, a work group comprised of staff of the Office of Education Accountability, the Legislative Research Commission, Kentucky Department of Education (KDE) and selected local school districts was

old that are in daily use in local school districts; (2) the current reimbursement for depreciation; and, (3) the cash needs of districts to purchase new buses.

The most recent survey of local districts reveals that there are more than 1,000 pre-1982 buses being used in daily routes. Not only do these buses potentially pose a threat to the safety of children, most have gasoline engines which are more expensive to run and maintain than the newer diesel engines. These buses should be replaced as soon as possible.

The current depreciation schedule provides that 12% of the state contract purchase price for buses be depreciated in each of years one and two, 10% in each year three through eight, 8% in each year nine and ten, and 6% each year in years eleven through fourteen, for a total depreciation of 124%. Not only does this schedule encourage districts to keep older model buses in daily use, it is not a sound financial arrangement for the state. Coupled with another recommendation which follows, a ten year depreciation schedule of 100% would be more appropriate.

For a variety of reasons, many districts do not have the cash needed to replace deteriorated vehicles or are unwilling to enter into financing arrangements for the same purpose. It is recommended that purchasing of buses become a responsibility of the state through the KDE by the issuance of bonds. To provide that no buses more than ten years old are used in daily routes, all pre-1983 buses should be replaced in 1992-93 with a regular replacement schedule in place for subsequent years.

In conjunction with state purchasing of buses, a state inspection program would be essential. Maintenance of the buses would be a local responsibility and it would be incumbent upon the KDE to insure that the state's investment is protected. The inspection program should include staff who are also capable in assisting with efficient routing and dealing with other transportation problems as districts' needs arise.

### **RECOMMENDATIONS:**

- \* The purchase of buses should be at the state level. The state should own the buses and replace on an appropriate schedule. A bonding program is recommended.
- \* All pre-1983 buses should be replaced in 1992-93 with other buses being replaced as the age reaches ten years.
- \* The first ten years of the current depreciation schedule should be maintained for buses already in service, eliminating years 11-14.
- \* A state inspection program to insure proper maintenance should be implemented. Staff assigned to the program should be knowledgeable in maintenance and/or mechanics, routing efficiencies and other needed services.
- **F. Graph Adjustment.** KRS 157.370(1) provides that, "In determining the cost of transportation for each school district, the chief state school officer shall determine the average cost per pupil per day of transporting pupils in districts having a similar density of transported pupils per square mile of area served by not less than nine different density groups." Section (6) continues by

stating that this will be determined by "... constructing a smoothed graph of cost for the density groups ...." The procedure of plotting the eligible reimbursement costs on a graph and adjusting to the average cost presents some problems. First, there is no solid evidence that the districts above the average reimbursement level are there due to inefficiency or any other factor within their control. The intent of the graph is to encourage districts to become efficient enough to be at or below the average reimbursement level. While this standard is admirable, it is not infallible. Second, due to the size of the district, Jefferson County does not fit the graph adjustment procedure. Assumptions are made to basically make up a standard for the uniqueness of the district. Due to the time constraints of this study, no solutions to the graph adjustment problems are forthcoming. More time should be devoted to this issue with the goal of delivering additional recommendations to the 1994 General Assembly.

### RECOMMENDATION:

- \* Additional time should be devoted to the review of the graph adjustment procedure, including a complete review of how Kentucky funds transportation and what the obligations and responsibilities of the state should be.
- G. Other Factors. The issue of the condition of roads as a factor in the reimbursement schedule was addressed. Data supporting justification for condition of roads as a factor is not readily accessible. However, the implementation of state purchasing of buses on a ten-year cycle should diminish any differences in cost for road conditions. Therefore, no change is recommended.

### PART 5. OTHER SEEK RELATED ISSUES

The base of the SEEK calculation is particularly important in terms of adequacy of funding for elementary and secondary eduction in Kentucky. Due to the structure of the formula, every district is assured that at least the base funding level will be provided for each and every pupil. Every district, every pupil in the Commonwealth has a stake in the base funding level.

Dr. John Augenblick, in a recent report to the Kentucky Department of Education, recommended that "the base level should be adjusted by an inflation factor for no more than four consecutive years. The inflation factor should be a standard indicator such as the Consumer Price Index (CPI), the elementary and secondary equivalent of the Higher Education Price Index (HEPI), or an index agreed upon by a committee designated by the General Assembly. Every fourth year, the base level should be evaluated by the Office of Education Accountability to determine its adequacy in light of state requirements placed on school districts, changes in technology, and the relationship between spending levels and pupil performance" (Augenblick 45).

The OEA concurs with the recommendation of Dr. Augenblick that an index should be used for 1992-94 with the expectation that a thorough review of the formula and the adequacy achieved will be available to the 1994 General Assembly.

The assistance of the LRC staff economists was sought relative to an appropriate index. The subsequent review and recommendation is found in

Appendix B. Both the CPI and the elementary and secondary index equivalent of the HEPI were reviewed. However, the recommendation of the staff economists is the use of the fixed-weight price index for State and Local Governments. It was determined that this index is both well researched and documented and would be a valid measure of local school district consumption patterns. The fixed-weight price index for State and Local Governments is projected to increase by approximately 4% in each of the next two years (See Appendix D). Therefore, the recommendation of the OEA is that the SEEK base be increased by a minimum of 4% each year of the 1992-94 biennium.

Issues related to vocational education have been prevalent during the biennium. One of these dealt with the funding for locally operated vocational schools and the perception that the SEEK program was adversely affecting the school districts operating these facilities. Following extended review, it was determined that the SEEK program does not adversely affect these districts. Districts that operate these facilities all received in 1990-91 state funding increases in excess of ten percent (10%) as well as a supplemental amount for administration of these schools.

The issue of locally operated vocational schools led to the second, more pronounced issue related to vocational education. This issue involves those school districts that send students to state-operated vocational schools for a portion of the school day. Under the school foundation program in operation prior to the passage of HB 940, school districts had a deduct factor of 9.6 applied to their average daily attendance (ADA) for each "unit" generated by those students attending the state-operated vocational school. For example, if the number of students from a particular school district attending a state-operated

vocational school produced two (2) "units" a deduct of 19.2 was applied to the ADA of that district when calculating the school foundation program allotments. The SEEK program is a pupil driven system, rather than a unit driven system, and the deduct for vocational school attendance was eliminated. KDE promulgated 702 KAR 7:050 (essentially the same regulation that was in effect prior to HB 940) that allows a local school district to count those students attending a state-operated vocational school in full-time attendance at their home school. The result of this is that many local school districts received funding through the SEEK program for students who were in attendance at another facility, namely a state-operated vocational school. The state-operated vocational school, operationally under the control of the Workforce Development Cabinet, received SEEK funds for the same period of instructional time.

The Executive Budget Request Manual for 1992-94 directed KDE to include as a part of their request for funds for the 1992-94 biennium a pro-rata ADA deduct for those students attending vocational education classes at state-operated vocational centers during a portion of the school day. The KDE request includes a pro-rata deduct of .3 for each full-time equivalent student in attendance at a state-operated vocational facility. OEA recommends that the ADA deduct be set at .7, recognizing that certain costs in a local district remain constant even though some students are attending another facility. Statewide, the portion of local school district budgets spent for instruction is approximately 72%. Since the Workforce Development Cabinet is providing the instructional component for certain students for a portion of the day, this portion should be deducted from the funds flowing to the home district of the student. Hence, the recommended factor of .7.

### PART 6. SUMMARY OF RECOMMENDATIONS

KRS 7.410 provides that "...the Division of School Finance ... shall conduct an ongoing review of the finance system. The review shall include an analysis of the level of equity achieved by the funding system and whether adequate funds are available to all school districts; a review of the weights of various education program components, which are to be developed by the Department of Education no later than October 1, 1991. The division shall develop recommendations for the base per pupil funding for the support education excellence in Kentucky program and a statewide salary schedule. It shall conduct studies of other finance issues identified as needing further study, including a review of the transportation formula required in KRS 157.360." This report represents the mandated reviews and annual reporting requirements for 1991. The results of the analyses and the mandates of KRS 7.410 are summarized in the following recommendations:

- \* The SEEK base for 1992-94 should be increased by a minimum of 4% per year, which is representative of the projections for increases in the fixed weight price index for State and Local Governments. The forecasts and an analysis of the documentation are found in Appendix B. It should be noted that an increase of 4% is forecast for 1992-93 and 3.7% for 1993-94. However, simplicity dictates a recommendation of 4% per year.
- \* Full funding for both Tier I and the Facilities Support Program of Kentucky is recommended.

- \* A deduct of .7 of the average daily attendance for the time spent by students in state-operated vocational schools is recommended. This recommendation is based on the fact that the SEEK calculation is a pupil driven formula such that districts are to be compensated for pupils in attendance. Since the students attending state-operated vocational schools are being educated in part by another entity, it is appropriate that districts not be compensated for the same pupils for whom the state is providing funding to state-operated vocational schools through the Workforce Development Cabinet. The statewide average spent on instruction is 70% of current operating expenses, thus the .7 deduct.
- \* A hold harmless provision for funds received through the SEEK calculation is recommended for each year of the 1992-94 biennium. This provision should be on a per pupil basis rather than on total funds. No district is to receive less per pupil through the SEEK formula than was received in the prior year.
- \* The level of equalization set at 150% of the statewide average of property wealth per pupil should remain constant for both years of the biennium.
- \* The five cents levied for the Facilities Support Program of Kentucky should be set aside in the calculation of funds for SEEK. This levy, whether or not it is being used for debt service, should be treated as a separate levy not to be comingled with Tier I levies. The intent of this program is to encourage local districts to meet projected needs for facilities. Thus, the recommendation is to set the FSPK levy aside.

- \* The thirty cent effort required of local districts should be for current operating expenses only. Debt service obligations are in addition to the required local effort and should not in any way be obligated to the required local effort.
- \* Categorical programs and pilot programs should not be funded outside the SEEK formula for more than four years. Hence, the new KERA initiatives as well as the pre-KERA categorical programs should either be brought into formula or abolished in 1994.
- \* The inequities of the distribution of teacher's retirement funds should be addressed during the 1992 Regular Session. The recommendation to deal with the issue is not meant to correct the situation during the coming biennium, but rather to review new methods of distribution during the next few months and implement a revised methodology that begins to address the problem in 1992.

### Summary of Recommendations for the Transportation Funding Formula:

- \* Statewide standards in efficient bus routing should be established by the KDE.
- \* The KDE should evaluate for possible statewide application the computerized bus routing model developed at Western Kentucky University.
- \* Should computerized bus routing become available statewide, linear density as a factor should be re-evaluated.

- \* Eliminate the T-2 designation for purposes of reimbursement for transportation costs.
- \* Guidelines should be developed by KDE to insure that students are not unnecessarily transported.
- \* No change is recommended in the factor of four criteria at this time. However, should the KDE or the Kentucky General Assembly request or mandate further review, it is recommended that expertise outside state government be sought to evaluate the reimbursement for handicapped children.
- \* The technical problem detected in the transportation calculation relative to handicapped children should be corrected by Administrative Regulation.
- \* The KDE should develop a standard reporting mechanism and develop policy relative to use of vehicles for activity other than transporting pupils to and from school, as well as transportation of pre-school pupils.
- \* The purchase of buses should be at the state level. The state should own the buses and replace on an appropriate schedule. A bonding program is recommended.
- \* All pre-1983 buses should be replaced in 1992-93 with other buses being replaced as their age reaches ten years.
- \* The first ten years of the current depreciation schedule should be maintained for buses already in service, eliminating years 11-14.

- \* A state inspection program to insure proper maintenance should be implemented. Staff assigned to the program should be knowledgeable in maintenance and/or mechanics, routing efficiencies and other needed services.
- \* Additional time should be devoted to the review of the graph adjustment procedure, including a complete review of how Kentucky funds transportation and what the obligations and responsibilities of the state should be.
- \* No change is recommended to provide the condition of roads traveled as a factor of reimbursement.

### **BIBLIOGRAPHY**

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Rose v. Council for Better Education, Inc., Ky., 790 S.W.2d 186 (189)

## APPENDIX A

# SCHOOL FINANCE EQUITY QUESTIONNAIRE

	Your Position:
	Size of District:(If Central Office Based)
	Size of School:(If School Based)
the	use Bill 940 directs the Office of Education Accountability to "conduct an ongoing review of finance system" to "include an analysis of the level of equity achieved by the funding system." e following questions are designed to solicit input from the education community in the mulation of a definition of equity and the parameters of the analysis.
<b>1</b>	For which group is it most appropriate that equity be provided by Kentucky's school finance system?
	Mark 1, 2, or 3 with I being most appropriate:
	Pupils
	Taxpayers
	Teachers
	Other (name of group:)
2.	If pupils were identified as the most appropriate group for which equity should be provided in Kentucky (even if you did not select pupils), what object should the school finance system assure is distributed equitably among pupils?
	Mark 1, 2, or 3 with 1 being most appropriate:
	Revenues or expenditures
	Resources (such as numbers and qualifications of teachers, course availability, number and quality of textbooks, technology, etc.)
4	Facilities (size, condition, and type of school buildings)
	Pupil performance (comparable test scores, drop—out rate, participation in post—secondary education opportunities, etc.)
	Other (name of object)

3.	If taxpayers were identified as the most appropriate group for which equity should be provided in Kentucky (even if you did not select taxpayers), what object should the school finance system assure is distributed equitably among taxpayers?
	Mark 1, 2, or 3 with 1 being most appropriate:
	Property tax burdens on taxpayers of different income levels (property taxes would be limited to a specified proportion of income)
	All local and state taxes used to support public elementary and secondary education (the tax burden for people with similar incomes would be similar
	The relationship between state and local revenues and property tax rates (two districts with the same tax rate would produce the same per pupil revenue from combined state and local sources)
	Other (name of object:)
4.	If teachers were identified as the most appropriate group for which equity should be provided in Kentucky (even if you did not select teachers), what object should the school finance system assure is distributed equitably among teachers?
	Mark 1, 2, or 3 with 1 being most appropriate:
	Salaries for teachers with similar training and experience regardless of where they work in the state
	Salaries for teachers with similar training and experience adjusted for local/regional cost-of-living indices
	Salaries and benefits for teachers with similar training and experience regardless of where they work in the state
	Salaries and benefits for teachers with similar training and experience adjusted for local/regional cost-of-living indices
	Other (name of object:)

5. In terms of selecting one or more equity principles for use in Kentucky, read the following statements and indicate whether you agree or disagree with the statement.

For the purpose of the following statements, assume that pupils is the group and revenues/expenditures is the object.

		Agree	Disagree	No Opinion
A.	True equity would exist when the revenues/expenditures available to pupils in the state are the same.			*MARKET STATE OF THE STATE OF T
B.	True equity would exist when the revenues/expenditures available to all pupils in the state. adjusted by the needs of the school districts in which pupils reside, are the same.			
C.	True equity would exist when the revenues/expenditures available to all pupils in the state, adjusted by the needs of the school districts in which pupils reside that the state considers in allocating school aid, are the same.			
D.	True equity would exist when there is no relationship between the per pupil revenues/expenditures of districts and the wealth of school districts. however wealth is measured.			
E.	True equity could exist if there were a variation in the per pupil revenues/expenditures of districts provided that the relationship between the per pupil revenues/expenditures and property tax rates of districts were strong.			
	True equity could exist if there were a variation in the per pupil revenues/expenditures of districts provided that the relationship between the per pupil revenues/expenditures and property tax rates of districts were strong and there was no relationship between property tax rates and the wealth of districts, however wealth is measured.			

6.	Assuming that it is appropriate to adjust the per pupil revenues/expenditures of districts for the purpose of evaluating the equity of Kentucky's school finance system, for which of the following factors should adjustments be made:
	A. Mark (X) those items below related to district characteristics for which an adjustment should be made:
	Enrollment levels of necessarily small schools
	Enrollment levels of necessarily small districts
	Decline in enrollment levels of schools
	Decline in enrollment levels of districts
	District population sparsity
	District population density
	Regional cost-of-education (or cost-of-living) differences
	Teacher training and experience
	Concentration of pupils from low income families
	Concentration of pupils with low academic achievement
	Other (characteristic:)
	B. Mark (X) those items below related to program characteristics for which an adjustment should be made:
	Special education programs
	Vocational programs
	Remedial programs
	Gifted and talented programs
	Bilingual programs
	Other (name of program:)

7. In evaluating school finance equity, attention is typically focused on the revenues and expenditures of school districts. Most equity analysis examines either the disparity in pupil revenues/expenditures among school districts or the relationship between per pupil revenues/expenditures and factors such as district wealth and tax effort. A number of questions arise about how to define revenues and expenditures precisely.

Read the statements below and indicate whether you agree or disagree by placing a mark (X) in the appropriate column:

		Agree	Disagree	No Opinion
Α.	When examining disparities in district revenues/expenditures, all federal funds should be excluded from consideration.	with the desiration of the company o	***************************************	
В.	Because they are likely to vary for ligitimate reasons, transportation revenues and/or expenditures should not be considered in an analysis of equity.			
C.	Expenditures for certain functions, such as special education, should be excluded from an examination of equity unless adjustments (for example, through the use of pupil weights) can be made to account for legitimate spending differences among districts.	**************************************		
D.	Revenues/expenditures for capital outlay and debt service should be examined separately from current operating revenues/expenditures in an analysis of equity.			
E.	Revenues/expenditures associated with employee benefits should be considered in examining school finance equity.			· · · · · · · · · · · · · · · · · · ·
F.	Local non-tax revenue sources, such as investment income, should not be considered in examining school finance equity.	***************************************	edital plants the best of the control of	esselfation polytopia del natividada de tronspromete
G.	District fund balances should be examined as part of an evaluation of fiscal equity.			nestelling proprietation in the contraction of the
Н.	Revenues/expenditures associated with auxiliary enterprises (such as food services) should not be considered in analyzing school finance equity.	Wilder Spanner Charles Confederations		

8. Equity measures are complex as a result of the policy and technical choices that must be made in creating them. In addition, they can be used in a variety of ways. The questions below focus on the use of equity measures in Kentucky.

# Read the statements below and indicate whether you agree or disagree by placing a mark (X) in the appropriate column:

*	- 0		Agree	Disagree	No Opinion
Α.	tinar	on the numerous goals that the school nee system in Kentucky is attempting to eve, it may be necessary to use multiple sures of equity.			
В.	Amo	ong the possible indicators of equity, e or all of the following should be used:	ndormating Made in Printed 2004 House Base and Edite	ogsåstidstaten også offentet til delenger sessen	elocation medical medi
	0	the disparity in the per pupil revenues/expenditures of school districts	egolopio de grando de la composito de la compo	equalization of the observation	
	0	the disparity in teacher salaries of school districts	adik kilinda paragaman da mati mati mati mati mati mati mati mat	while consistence and a consistence of the consiste	-equappus/partineration/innahullitacetistic
	0	the disparity in the pupil-teacher ratio of school districts		40000400000000000000000000000000000000	**************************************
	0	the relationship between the per pupil revenues/expenditures of school districts and the per pupil wealth of districts			
	0	the relationship between the average teacher salary of school districts and the per pupil wealth of districts	-stitutement de distribution de la constitute de la const	- Application of the Control of the	
_	0	the relationship between the average pupil-teacher ratio of school districts and the per pupil wealth of districts			
	0	the relationship between the per pupil revenues/expenditures of school districts and the tax effort of districts			
	0	the relationship between the average teacher salary of school districts and the tax effort of districts			***************************************
	0	the relationship between the average pupil-teacher ratio of school districts and the tax effort of districts		#GRATISHER COSTOCIO COSTOCIO PROPERTIMO	
	0	the relationship between the per pupil wealth of districts and the tax effort of districts		400000000000000000000000000000000000000	
C.	The	equity of Kentucky's school finance system ald be evaluated on a regular basis.	Guarante de consentación de la c		elegicalization of the first flow and the second
D.	is pr	en an alternative school finance system roposed by any policy maker, the level quity it produces should be evaluated	Construction (0.000 (0.		

9. Are there other issues that need to be addressed in defining equity or in evaluating the level of equity? If so, please comment.

10. General Comments:

11. Return to:

Kyna Koch, Director

Division of School Finance

Office of Education Accountability

Capitol Annex, Room 127

Frankfort, KY 40601



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### MEMORANDUM

TO:

Kyna Koch

Division of School Finance

Office of Education Accountability

FROM:

Donna A. Cantrell

Assistant Staff Economist

VIA:

Virginia Wilson

Staff Economist

SUBJECT:

Prices Indexes for School Finance Application

DATE:

November 5, 1991

Per your request, following is a review of different price indexes which may be appropriate for analysis of school finance related issues. This review will refer to three areas of application: school expenditures and budgets, salaries of personnel, and regional price indexes.

A price index is a ratio of the total price of a specified combination of goods and services, called a "basket", in a given year compared to the total price of the same basket in a previous year. The annual rate of change of a price index represents the rate of inflation. Most price indexes are published by the Bureau of Economic Analysis or the Bureau of Labor Statistics, federal data reporting agencies. Various price indexes are published. Indexes can be categorized by the population covered such as households, governments, or businesses. The mix of goods represented will differ for different populations since purchasing patterns differ. Price indexes are also published for categories of commodities in a particular basket, such as the housing or medical care components of the Consumer Price Index.

The appropriate price index for a specific application will depend on several criteria. First, one must consider how closely the basket of goods resembles the purchasing patterns of the population of interest. Secondly, the source of the index is also important in order to assure statistical validity and long-term availability of the index.

### Purchases by Elementary and Secondary Schools

There are two indexes that may be appropriate for education related purchases and/or budgets: The fixed-weight price index for State and Local Government Purchases and the School Price Index. Table 1 compares the share that each purchase category comprises of the total purchases measured by the index.

The fixed-weight price index for State and Local Government Purchases is compiled by the Bureau of Economic Analysis. This index measures the average prices of goods and services purchased by state and local governments. Categories of these purchases include personnel compensation, other services, durable and nondurable goods, and structures.

The School Price Index (SPI) is published by the private consulting firm, Research Associates of Washington. The SPI measures the average relative level of prices of goods and services purchased by elementary and secondary schools. Categories of purchases reflected in the SPI include personnel compensation, services, supplies, and some equipment. Capital outlay, debt service, and investment in equipment which is depreciated are not included in the basket of goods purchased.

The annual rate of change, based on fiscal years, for both indexes are illustrated in Chart 1. Generally, the SPI reflects higher rates of inflation than the State and Local Government index. However, it is likely that this is due to the inclusion of the structures component in the state and local government index. This component has exhibited much lower rates of inflation since the base year than the components of personnel compensation and other services.

<sup>&</sup>lt;sup>1</sup>Inflation Measures for Schools and Colleges 1991 Update, Research Associates of Washington.

# APPENDIX B

Table 1
Components of Price Indexes

	School Price
Index Components	Index
Personnel Compensation	79.2%
Contracted Services,	
Supplies, Equipment	20.8%
Structures	0.0%

	Fixed-Weight Price Index
	State and Local
Index Components	Government Purchases
Personnel Compensation	61.5%
Other Services	13.6%
Durable Goods	3.9%
Nondurable Goods	10.2%
Structures	11.8%

There are several reasons why I would advise using caution if the SPI is used for inflation adjustment. First, the index is published by a private consulting organization. All information on the index must be purchased from this organization, including documentation of statistical methods, data used to compile the index, and the index itself. Because of this, I am concerned that the validity of this index has not been sufficiently Secondly, according to the publication <u>Inflation</u> Measures for Schools and Colleges, which provides limited documentation of the SPI, the SPI is based on consumption patterns from the years 1973 to 1976. Considering the changing nature of purchases by other organizations, especially those related to computers and other technology investments, it is likely that consumption patterns for schools have changed somewhat since this time period. Finally, if this organization were to go out of business, there is no quarantee that the index would be available in future years.

On the other hand, the Fixed-Weight Price Index for State and Local Government Purchases is published by a federal agency, is widely distributed, is free, and has been well documented and researched. Furthermore, this index is based on 1982 consumption patterns. The Bureau of Economic Analysis is in the process of revising this index to reflect 1987 consumption patterns. Therefore, it will more closely reflect trends in 1991 than the SPI.

As I stated earlier, the appropriate index also depends how closely the index reflects consumption patterns of the population of interest. The most significant difference between these two indexes is that the State and Local Government index includes capital expenditures while the SPI does not. The appropriateness of the inclusion or exclusion of the structures and capital expenditures component of the index depends on the nature of the school budgets to be evaluated. If capital outlays are included in the budgetary analysis, then an appropriate index would include this as a consumption category.

### Income Adjustment Price Indexes

There are two primary types of price indexes used to adjust incomes of individuals, the Consumer Price Index for all Urban Consumers (CPI-U) and the Fixed-Weighted Personal Consumption Expenditure (PCE) index. Both indexes reflect the prices of goods and services purchased by individuals such as food, clothing, housing, transportation and medical care. Trends in these indexes are illustrated in Chart 2.

The CPI-U, published by the Bureau of Labor Statistics, is the more commonly used measure of price trends. The CPI-U population excludes those individuals living in rural areas. An advantage of the CPI-U is that the indexes are released in a timely manner, usually within three weeks of a month's end. The PCE is compiled by the Bureau of Economic Analysis. The PCE population includes urban and rural individuals. The inclusion of rural consumers as the population and differences in survey methods by BEA and BLS account for most of the difference between the PCE and the CPI. It would be appropriate to use either of these two indexes to adjust the income of individuals for inflation, as in the calculation of cost of living raises.

### State and Regional Price Indexes

Price indexes are not available on a state-by-state level or for regions within states. The national data agencies (BEA or BLS) do not conduct the detailed state-by-state surveys that would be necessary to construct such an index and there is not a comparable state agency or organization which collects this data for Kentucky. Any effort to do so would require significant investments in personnel and equipment, and ultimately would be very expensive. The expense would have to be weighed against the benefits obtained from having the index.

At one time, the University of Kentucky compiled data for a Kentucky price index. They found that the Kentucky-specific index did not differ significantly from the national indexes. In light of this and considering the expense involved in data

## APPENDIX D



SENATE MEMBERS Charles W. Berger Assistant President Pro Tem Joe Wright Majority Floor Leader

John D. Rogers Minority Floor Leader

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Jim Zimmerman Minority Whip

#### MEMORANDUM

TO:

Kyna Koch

Division of School Finance

Office of Education Accountability

FROM:

Donna A. Cantrell

Assistant Staff Economist

SUBJECT:

Forecast of the Fixed-Weight Price Index for State and Local Governments

DATE:

December 5, 1991

Per your request, attached is a table summarizing forecasts of the Fixed-Weight Price Index for State and Local Government Purchases. The Bureau of Economic Analysis publishes two indexes for State and Local Government Purchases; the fixed-weight price index, and the implicit price index.

Fixed-weight indexes measure the price of a fixed combination of goods and services, where the combination of purchases reflects purchasing patterns in a specified base year. The rate of change in this index measures pure price changes over a particular period.

Implicit price indexes are not measures of pure price changes. These indexes reflect purchasing patterns in each year and the combination of goods and services changes from year-to-year. Therefore, the implicit price index measures changes in both prices and purchasing patterns.

I have been unable to obtain a forecast of the Fixed-Weight Price Index for State and Local Government Purchases from a national forecasting firm. However, the implicit price index is forecasted by several groups. Table 1 lists historical data on both the

Implicit and Fixed-Weight price indexes from FY1977 to FY1991. Also included is a DRI forecast of the Implicit Price Index for FY1992 to FY1994. The rates of change in the indexes are illustrated in Chart 1. As you can see, trends in these indexes are virtually identical. Because of the historically strong correlation between these two indexes, it is reasonable to assume that future trends in the Fixed-Weight Price Index will continue to reflect those of the Implicit Price Index. Based on DRI's forecast, it is projected that the rate of inflation for state government purchases will be 4.1% in FY1992, 4.0% in FY1993, and 3.7% in FY1994.

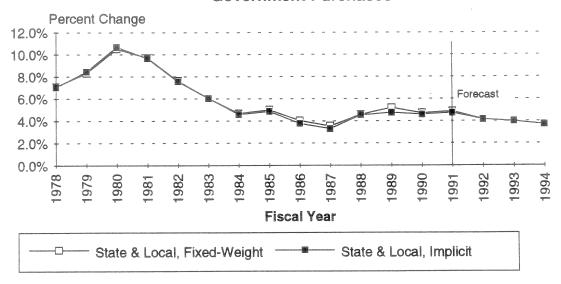
It is my understanding that you are primarily interested in the rates of change rather than the index numbers themselves. However, in the event that you will need a forecast of the index numbers, I have used DRI's forecast of the projected rates of change in the Implicit Price Index to estimate the Fixed-Weight Price Index. These estimates are also listed in Table 1.

Please contact me if you have any questions or I can be of further assistance.

Table 1
State and Local Government Price Indexes

**Fixed-Weight Price Index** Implicit Price Index State and Local Gov't\*\* State and Local Gov't\* Percent Percent Index Change Index Change **Fiscal Year** 64.0 1977 63.9 7.1% 68.4 7.0% 68.5 1978 74.2 8.3% 1979 74.2 8.4% 1980 82.1 10.7% 82.0 10.5% 9.7% 90.0 9.6% 1981 90.0 7.6% 1982 96.8 7.5% 96.8 6.0% 102.6 6.0% 102.6 1983 4.7% 107.4 107.3 4.6% 1984 5.0% 112.5 4.8% 112.7 1985 4.0% 117.3 1986 116.7 3.8% 3.5% 3.3% 121.4 1987 120.5 127.0 4.6% 4.5% 1988 126.0 4.7% 133.5 5.2% 131.9 1989 4.7% 4.6% 139.8 1990 138.0 144.5 4.7% 146.6 4.9% 1991 152.6 4.1% 150.4 4.1% 1992 1993 156.4 4.0% 158.7 4.0% 3.7% 3.7% 164.5 1994 162.2

Chart 1
Trends in the the Fixed-Weight and Implicit
Price Index for State and Local
Government Purchases



<sup>\*1992-1994</sup> forecast from DRI/Mcgraw-Hill Review of the U.S. Economy, November 1991

<sup>\*\*1992-1994</sup> estimated from forecast of Implicit Price Index



#### 1989-90 WEALTH QUINTILES

QUINTILE 1	QUINTILE 2	QUINTILE 3	QUINTILE 4
AUGUSTA IND	ADAIR CO	BALLARD CO	ANDERSON CO
BATH CO	ALLEN CO	BARREN CO	ASHLAND IND
BELL CO	BARBOURVILLE IND	BELLEVUE IND	BARDSTOWN IND
BREATHITT CO	BEREA IND	BOURBON CO	BOWLING GREEN IND
BUTLER CO	BRACKEN CO	BOYLE CO	BOYD CO
CARTER CO	BULLITT CO	BRECKINRIDGE CO	BURGIN IND
CLAY CO	CALDWELL CO	CALLOWAY CO	CAMPBELL CO
CLINTON CO	CAMPBELLSVILLE IND	ELIZABETHTOWN IND	CARROLL CO
CLOVERPORT IND	CARLISLE CO	EMINENCE IND	CLARK CO
DAWSON SPRINGS IND	CASEY CO	FLEMING CO	DANVILLE IND
DAYTON IND	CAVERNA IND	GALLATIN CO	DAVIESS CO
EAST BERNSTADT IND	CHRISTIAN CO	GARRARD CO	ERLANGER-ELSMERE IND
EDMONSON CO	CORBIN IND	GLASGOW IND	FT THOMAS IND
ELLIOTT CO	COVINGTON IND	GRAVES CO	FRANKFORT IND
ESTILL CO	CRITTENDEN CO	HANCOCK CO	FRANKLIN CO
FLOYD CO	CUMBERLAND CO	HARDIN CO	HENDERSON CO
HARLAN CO	FAIRVIEW IND	HARRISON CO	JESSAMINE CO
HARLAN IND	FULTON CO	HARRODSBURG IND	KENTON CO
HART CO	FULTON IND	HENRY CO	LIVINGSTON CO
JACKSON CO	GRANT CO	HICKMAN CO	LYON CO
JACKSON IND	GRAYSON CO	HOPKINS CO	MARSHALL CO
JENKINS IND	GREEN CO	LOGAN CO	MASON CO/MAYSVILLE
JOHNSON CO	GREENUP CO	MADISON CO	MURRAY IND
KNOTT CO	HAZARD IND	MARTIN CO	OLDHAM CO
KNOX CO	LARUE CO	MAYFIELD IND	OWENSBORO IND
LAWRENCE CO	LAUREL CO	MCCRACKEN CO	PADUCAH IND
LEE CO	MARION CO	MCLEAN CO	PIKEVILLE IND
LESLIE CO	MEADE CO	MERCER CO	RUSSELL IND
LETCHER CO	MIDDLESBORO IND	MUHLENBERG CO	SCOTT CO
LEWIS CO	MONTGOMERY CO	NELSON CO	SHELBY CO
LINCOLN CO	NICHOLAS CO	OHIO CO	SOMERSET IND
LUDLOW IND	OWEN CO	PAINTSVILLE IND	SOUTHGATE IND
MAGOFFIN CO	PARIS IND	RACELAND IND	TRIMBLE CO
MCCREARY CO	PERRY CO	SIMPSON CO	
MENIFEE CO	PIKE CO	TRIGG CO	QUINTILE 5
METCALFE CO	PULASKI CO	UNION CO	
MONROE CO	ROBERTSON CO	WARREN CO	ANCHORAGE IND
MONTICELLO IND	ROWAN CO	WASHINGTON CO	BEECHWOOD IND
MORGAN CO	RUSSELL CO	WEBSTER CO	BOONE CO
NEWPORT IND	RUSSELLVILLE IND	WILLIAMSTOWN IND	FAYETTE CO
OWSLEY CO	SPENCER CO		JEFFERSON CO
PENDLETON CO	TAYLOR CO		WOODFORD CO
PINEVILLE IND	TODD CO		
POWELL CO			
PROVIDENCE IND			
ROCKCASTLE CO			
SCIENCE HILL IND			
SILVER GROVE IND			
WALTON VERONA IND			
WAYNE CO			
WEST POINT IND			
WHITLEY CO			•
WILLIAMSBURG IND			
WOLFE CO			

#### 1990-91 WEALTH QUINTILES

QUINTILE 1	QUINTILE 2	QUINTILE 3	QUINTILE 4
AUGUSTA IND	ADAIR CO	ASHLAND IND	ANDERSON CO
BATH CO	ALLEN CO	BALLARD CO	BARDSTOWN IND
BELL CO	BARBOURVILLE IND	BARREN CO	BOWLING GREEN IND
BREATHITT CO	BEREA IND	BELLEVUE IND	BOYD CO
BUTLER CO	BRACKEN CO	BOURBON CO	BURGIN IND
CARTER CO	BULLITT CO	BOYLE CO	CAMPBELL CO
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ELLIOTT CO	CRITTENDEN CO	GLASGOW IND	FT THOMAS IND
ESTILL CO	CUMBERLAND CO	HANCOCK CO	JESSAMINE CO
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JACKSON CO	GRAVES CO	HOPKINS CO	MCCRACKEN CO
JACKSON IND	GRAYSON CO	LOGAN CO	MURRAY IND
JENKINS IND	GREEN CO	MADISON CO	OLDHAM CO
JOHNSON CO	HARRISON CO	MCLEAN CO	OWENSBORO IND
KNOTT CO	HAZARD IND	MERCER CO	PADUCAH IND
KNOX CO	LARUE CO	MIDDLESBORO IND	PIKEVILLE IND
LAWRENCE CO	LAUREL CO	MUHLENBERG CO	RUSSELL IND
LEE CO	MARION CO	NELSON CO	SCOTT CO
LESLIE CO	MARTIN CO	OHIO CO	SHELBY CO
LETCHER CO	MAYFIELD IND	PAINTSVILLE IND	SOUTHGATE IND
LEWIS CO	MEADE CO	PULASKI CO	TRIMBLE CO
LINCOLN CO	METCALFE CO	RACELAND IND	WOODFORD CO
LUDLOW IND	MONTGOMERY CO	SIMPSON CO	
MAGOFFIN CO	NEWPORT IND	SOMERSET IND	ga-mati i sauta manga anna hadi kanga kata majiri mahinan dana Kanga dana hadi anna kanga sauta sauta sauta sa
MCCREARY CO	NICHOLAS CO	TRIGG CO	QUINTILE 5
MENIFEE CO	OWEN CO	UNION CO	
MONROE CO	PARIS IND	WARREN CO	ANCHORAGE IND
MONTICELLO IND	PERRY CO	WASHINGTON CO	BEECHWOOD IND
MORGAN CO	PIKE CO	WEBSTER CO	BOONE CO
OWSLEY CO	ROBERTSON CO	WILLIAMSTOWN IND	FAYETTE CO
PENDLETON CO	ROWAN CO		JEFFERSON CO
PINEVILLE IND	RUSSELL CO		
POWELL CO	RUSSELLVILLE IND		
PROVIDENCE IND	SPENCER CO		
ROCKCASTLE CO	TAYLOR CO		
SCIENCE HILL IND	TODD CO		
SILVER GROVE IND	WILLIAMSBURG IND		
WALTON VERONA IND			
WAYNE CO			
WEST POINT IND			
WHITLEY CO			
WOLFE CO			



			***************************************				1989.90	1990.91	
	0000	1000		000	4000		CTATE	CTATE	
SES		LOCAL	*	STATE	STATE	~	% LOCAL	% LOCAL	*
NAME	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE
Adair	\$739,517	\$1,342,990	81.6%	\$5,507,229	\$6,999,770	27.1%	\$6,246,746	\$8,342,760	33.6%
Alten	\$1,165,296	\$1,285,975	10.4%	\$5,708,942	\$7,005,229	22.7%	\$6,874,238	\$8,291,204	20.6%
Anderson	\$1,201,351	\$2,468,905	105.5%	\$5,427,444	\$6,153,698	13.4%	\$6,628,795	\$8,622,604	30.1%
Ballard Co.	\$873,429	\$1,036,116	18.6%	\$3,417,082	\$3,918,119	14,7%	\$4,290,511	\$4,954,235	15.5%
Barren Co.	\$1,154,266	\$1,746,722	51.3%	\$6,442,263	\$7,942,312	23.3%	\$7,596,529	\$9,689,034	27.5%
Caverna Ind.	\$602,882	\$670,852	11.3%	\$2,160,777	\$2,749,534	27.2%	\$2,763,659	\$3,420,386	23.8%
Glasgow Ind.	\$1,662,920	\$1,768,031	6.3%	\$4,789,608	\$5,400,983	12.8%	\$6,452,529	\$7,169,014	7.1%
Bath	\$464,599	\$553,901	19.2%	\$3,970,159	\$4,888,830	23.1%	\$4,434,758	\$5,442,730	22.7%
Bell	\$803,426	\$1,452,944	80.8%	\$8,778,606	\$11,362,574	29.4%	\$9,582,032	\$12,815,518	33.7%
Middlesboro Ind.	\$1,118,655	\$1,477,754	32.1%	\$4,214,021	\$5,396,801	28.1%	\$5,332,675	\$6,874,555	28.9%
Pineville Ind.	\$265,150	\$275,868	4.0%	\$1,083,758	\$1,389,254	28.2%	\$1,348,908	\$1,665,123	23.4%
Boone Ca.	\$9,873,372	\$13,401,340	35.7%	\$16,940,803	\$18,833,680	11.2%	\$26,814,175	\$32,235,020	20.2%
Walton Verona Ind	\$901,270	\$960,155	6.5%	\$1,816,075	\$2,330,914	28.3%	\$2,717,346	\$3,291,068	21.1%
Bourbon Co.	\$1,181,019	\$2,180,481	84.6%	\$5,449,206	\$6,418,633	17.8%	\$6,630,225	\$8,599,114	29.7%
Paris Ind.	\$743,047	\$880,529	18.5%	\$2,322,332	\$2,680,576	15.4%	\$3,065,379	\$3,561,105	16.2%
Bayd Ca.	<b>\$2,492,958</b>	\$3,396,632	36.2%	\$9,164,239	\$10,333,295	12.8%	\$11,657,197	<b>\$13,729,927</b>	17.8%
Ashland Ind.	\$2,971,689	\$3,670,196	23.5%	\$6,976,356	\$8,437,136	20.9%	\$9,948,045	\$12,107,332	21.7%
Fairview Ind.	<b>\$499,926</b>	\$536,918	7.4%	\$1,573,390	\$1,849,053	17.5%	\$2,073,316	\$2,385,971	5.1%
Boyle	\$1,634,903	\$2,020,453	23.6%	\$5,249,158	\$6,305,896	20.1%	\$6,884,062	\$8,326,349	21.0%
Danville ind	\$2,049,116	\$2,029,261	.1.0%	\$3,787,676	\$4,642,829	22.6%	\$5,836,792	\$6,672,090	14.3%
Bracken Co.	\$451,621	\$522,377	15.7%	\$2,479,948	\$2,833,205	14.2%	\$2,931,569	\$3,355,582	14.5%
Augusta Ind.	<b>\$128,531</b>	\$146,840	14.2%	\$638,388	\$830,805	30.1%	\$766,919	\$977,645	27.5%
Breathitt	\$856,756	\$984,304	14.9%	\$6,407,860	\$8,331,886	30.0%	\$7,264,616	\$9,316,191	28.2%
Jackson Ind.	\$120,520	\$130,509	8.3%	\$669,923	\$919,219	37.2%	\$790,443	\$1,049,729	32.8%
Breckinridge	\$1,209,309	\$1,547,812	28.0%	\$5,482,624	\$6,637,280	21.1%	\$6,691,933	\$8,185,093	22.3%
Cloverport	<b>\$118,526</b>	\$94,513	.20.3%	\$812,743	\$975,763	20.1%	\$931,269	\$1,070,277	14,9%
Bullitt Co.	\$3,289,724	\$4,128,408	25.5%	\$19,733,245	\$23,748,393	20.3%	\$23,022,970	\$27,876,801	21.1%

1989-90   1990-91   1989								1989.90	1990-91	
STRICT   LOCAL   LOCAL   %   %   %   %   %   %   %   %   %	-	00.00	1990.91		6,500	1990.9			STATE	
### REVENUE REVENUE CHANGE RI \$865.547 \$1.064.905 23.0% \$1.629.587 \$3.483.349 90.4% \$1.64.005 \$1.40.00 \$1.00.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00 \$1.00.00.00 \$1		CAI		*			%	& LOCAL	% LOCAL	×
## \$865,547 \$1,064,905 23.0% ## \$1,629,587 \$3,483,349 90.4% ## \$4,460,875 \$5,789,690 29.8% ## ## ## \$1,011,383 \$1,071,848 6.0% ## ## \$1347,617 \$565,656 62.7% ## ## ## \$1,256,134 10.324 1.6% ## ## ## ## \$1,213,355 \$1,340,802 10.5% ## ## ## ## ## ## ## ## ## ## ## ## ##		/ENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE
## \$1,629,587 \$1,064,905 23.0% ## #1,629,587 \$3,463,349 90.4% \$ ## #1,011,383 #1,071,848 6.0% ## #612,561 #601,324 1.6% ## #612,561 #601,324 1.6% ## #612,561 #601,324 1.6% ## #612,561 #601,324 1.6% ## #612,561 #601,324 1.6% ## #612,561 #1,324 1.6% ## #1,213,355 \$1,340,802 10.5% ## #1,326,358 #1,626,022 2.5% ## #1,588,358 #1,626,022 2.5% ## #1,588,358 #1,626,022 2.5% ## #1,295,259 \$1,442,800 11.4% ## #1,295,259 \$1,442,800 11.4% ## #1,295,259 \$1,442,800 11.4% ## #1,295,259 \$1,442,800 11.4% ## #1,295,259 \$1,442,800 11.4% ## #1,295,259 \$1,442,800 11.4% ### #1,391,33 #1,881,502 3.5% ### #1,413,133 #1,881,502 3.5% ### #1,413,133 #1,881,502 3.5% ## #1,351,053 #1,737,138 28.6% ## #1,351,053 #1,737,138 28.6% ### #1,351,055 \$6,446,130 12.7% ### #1,351,055 \$6,446,130 12.7%										
\$1,629,587 \$3,483,349 90.4% \$  irt Ind. \$1,011,383 \$1,071,848 6.0% \$1,471,848 6.0% \$1,471,848 6.0% \$1,471,848 6.0% \$1,471,848 6.0% \$1,471,848 8.0% \$1,471,848 8.0% \$1,471,848 8.0% \$1,411,340,812 \$1,340,812 10.5% \$1,741,848 \$1,741,848 \$1,741,848 \$1,741,848 \$1,741,848 \$1,741,848 \$1,741,848 \$1,741,941,941 \$1,744,265 \$1,941,150 \$1,541,441,848 \$1,541,841,841,841,841,841,841,841,841,841,8		865,547	\$1,064,905	23.0%	\$5,213,613	\$6,063,467	16.3%	\$6,079,160	\$7,128,372	17.3%
rt Ind. \$4,460,875 \$5,789,690 29.8% \$  rt Ind. \$1,011,383 \$1,071,848 6.0%  \$347,617 \$565,656 62.7%  Ind. \$486,643 \$557,988 14.7%  \$11,213,355 \$1,340,802 10.5%  \$1,213,355 \$1,340,802 10.5%  \$1,213,355 \$1,340,802 10.5%  \$1,731,066 \$1,984,150 14.6%  Ind. \$1,731,066 \$1,984,150 14.6%  \$1,731,066 \$1,984,150 14.6%  \$1,731,066 \$1,984,150 14.6%  Ind. \$1,117,326 \$1,583,281 41.7%  Ind. \$1,295,259 \$1,442,800 11.4%  Ind. \$2,025,532 \$2,401,438 18.6%  Ind. \$2,025,532 \$2,401,438 18.6%  Ind. \$2,025,532 \$2,401,438 18.6%  Ind. \$2,051,13 \$1,748,418 7.3%  \$4,744,265 \$9,018,997 90.1%  \$1,313,127 \$132,401 7.5%  Ind. \$501,075 \$581,024 16.0%  Ind. \$501,075 \$581,024 16.0%  \$602,887 \$1,063,840 76.5%  \$501,075 \$6,446,130 12.7%  \$501,075 \$6,446,130 12.7%		.829,587	\$3,483,349	90.4%	\$17,448,716	\$22,617,225	29,6%	\$19,278,303	\$28,100,574	35.4%
### ##################################		,460,875	\$5,789,690	29.8%	\$12,432,701	\$13,899,802	11.8%	\$16,893,576	\$19,689,492	16.6%
#612,551	t Ind.	011,383	\$1,071,848	80.9	\$1,880,597	\$2,261,435	20.3%	\$2,891,981	\$3,333,283	15,3%
ind, \$486,643 \$557,988 14.7%  \$ \$486,643 \$557,988 14.7%  \$ \$1,213,355 \$1,340,802 10.5%  \$ \$1,213,355 \$1,340,802 10.5%  \$ \$1,213,356 \$1,340,802 10.5%  \$ \$1,731,056 \$1,984,150 14.6%  In \$ \$1,171,326 \$1,583,281 41.7%  In \$ \$1,117,326 \$1,583,281 41.7%  Ind, \$\$23,272 \$868,550 66.0%  \$ \$1,295,259 \$1,442,800 11.4%  Ind, \$\$2,025,532 \$2,401,438 18.6%  \$ \$4,744,265 \$9,018,997 90.1%  \$ \$4,744,265 \$9,018,997 90.1%  \$ \$4,744,265 \$9,018,997 90.1%  \$ \$1,23,127 \$1,348,418 7.5%  Ind \$\$501,075 \$581,024 16.0%  Ind \$\$501,075 \$581,024 16.0%  \$ \$602,887 \$1,063,840 76.5%  \$ \$602,887 \$1,063,840 76.5%  \$ \$602,887 \$1,063,840 12.7%  \$ \$602,887 \$1,063,840 12.7%		347,617	\$565,656	62.7%	\$2,036,474	\$2,546,788	25.1%	\$2,384,090	\$3,112,444	30.6%
\$486,643 \$557,988 14.7% \$\$1,213,355 \$1,527,761 70.4% \$\$1,213,355 \$1,340,802 10.5% \$\$1,340,802 10.5% \$\$1,731,066 \$1,984,150 14.6% \$\$1,731,066 \$1,984,150 14.6% \$\$1,117,326 \$1,583,281 41.7% \$\$1,117,326 \$1,583,281 41.7% \$\$1,117,326 \$1,583,281 41.7% \$\$1,117,326 \$1,583,281 41.7% \$\$1,117,326 \$1,583,281 41.7% \$\$1,117,326 \$1,442,800 11.4% \$\$1,295,259 \$1,442,800 11.4% \$\$4,744,265 \$9,018,997 90.1% \$\$4		1812,551	\$601,324	.1.8%	\$1,268,545	\$1,534,898	21.0%	\$1,881,096	\$2,138,222	13,6%
stown Ind. \$1,213,355 \$1,340,802 10.5% \$1,213,355 \$1,340,802 10.5% \$1,213,355 \$1,340,802 10.5% \$1,213,066 \$1,984,150 14.6% \$1,71,7326 \$1,583,281 41.7% \$1,117,326 \$1,583,281 41.7% \$1,117,326 \$1,583,281 41.7% \$1,117,326 \$1,583,281 41.7% \$1,117,326 \$1,583,281 41.7% \$1,117,326 \$1,583,281 41.7% \$1,295,259 \$1,442,800 11.4% \$1,295,259 \$1,442,800 11.4% \$1,295,259 \$1,748,418 7.3% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$1,000,010 \$1,000,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000 \$1,000,000,000 \$1,000,000,000 \$1,000,0		486,643	\$557,988	14.7%	\$2,060,940	\$2,577,014	25.0%	\$2,547,583	\$3,135,002	23.1%
\$1,213,355 \$1,340,802 10.5%  \$town lind, \$510,686 \$1,984,150 14.6%  \$1,731,066 \$1,984,150 14.6%  \$1,117,326 \$1,583,281 41.7%  \$2,53,272 \$868,550 66.0%  \$1,295,259 \$1,442,800 11.4%  Ind, \$2,025,532 \$2,401,438 18.6%  \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1%  \$1,818,133 \$1,848,116 7.5%  Ind \$2,061,118 \$2,582,173 25.9%  Ind \$501,075 \$581,024 16.0%  \$602,887 \$1,737,138 28.6%  \$602,887 \$1,063,840 76.5%  \$602,887 \$1,063,840 76.5%		296,683	\$1,527,761	70,4%	\$4,007,058	\$4,780,943	19.3%	\$4,903,710	\$6,308,704	28.7%
stown Ind.         \$510,686         \$589,764         15.5%           strown Ind.         \$1,731,066         \$1,984,150         14.6%           n         \$1,17,326         \$1,583,281         41.7%           n         \$1,117,326         \$1,583,281         41.7%           p         \$1,295,259         \$1,442,800         11.4%           nd ind.         \$782,784         \$777,201         0.7%           ind.         \$2,025,532         \$2,401,438         18.6%           k         \$1,244,265         \$9,018,997         90.1%         \$           thrown         \$1,818,133         \$1,881,502         3.5%           oint Ind.         \$2,061,118         \$2,562,173         25.9%         \$           ind         \$501,075         \$581,024         16.0%           in         \$1,381,053         \$1,737,138         28.6%           son         \$6,721,005         \$6,446,130         12.7%           son         \$6,721,005         \$6,446,130         12.7%		,213,355	\$1,340,802	10.5%	\$5,542,939	\$7,203,500	30.0%	\$6,756,294	\$8,544,302	26.5%
# \$1,731,066 \$1,984,150 14.6%  # # # # # # # # # # # # # # # # # # #		989'0154	\$589,764	15.5%	\$1,217,093	\$1,503,971	23.6%	\$1,727,780	\$2,093,735	21.2%
Helind. \$1,588,358 \$1,628,022 2.5%  n \$1,117,326 \$1,583,281 41.7%  p \$1,295,259 \$1,442,800 11.4%  ind ind. \$2,025,532 \$2,401,438 18.6%  ik \$1,629,173 \$1,748,418 7.3%  ind ind. \$123,127 \$132,401 7.5%  oint ind. \$123,127 \$132,401 7.5%  ind \$501,075 \$581,024 16.0%  ind \$501,075 \$581,024 16.0%  son \$6,721,005 \$6,446,130 12.7%  \$6,721,005 \$6,446,130 12.7%		,731,066	\$1,984,150	14.6%	\$8,445,194	\$10,082,802	19.4%	\$10,176,260	\$12,066,953	18.6%
#523,272	dini.	856,882,	\$1,628,022	2.5%	\$3,020,336	\$3,737,676	23.8%	\$4,608,694	\$5,365,698	16.4%
\$523,272 \$868,550 66.0% oddered \$17.295,259 \$1,442,800 11.4% oddered \$777,201 0.0.7% oddered \$2,025,532 \$2,401,438 18.6% oddered \$1,629,173 \$1,748,418 7.3% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$123,127 \$132,401 7.5% oint ind \$123,127 \$132,401 7.5% oint ind \$501,075 \$581,024 16.0% oint ind \$501,075 \$581,024 16.0% oint ind \$502,887 \$1,737,138 28.6% oint ind \$502,887 \$1,737,138 28.6% oint ind \$502,887 \$1,063,840 76.5% oint ind \$502,887 \$1,063,840 12.7% \$500,0000000000000000000000000000000000		,117,326	\$1,583,281	41.7%	\$8,261,732	\$10,251,522	24.1%	\$9,379,058	\$11,834,803	26.2%
p \$1,295,259 \$1,442,800 11.4% ind ind. \$2,025,532 \$2,401,438 18.6% ik \$1,629,173 \$1,748,418 7.3% ik \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% int lnd. \$123,127 \$132,401 7.5% ind \$501,075 \$581,024 16.0% in \$1351,055 \$1,737,138 28.6% son \$602,887 \$1,063,840 76.5% son \$6,721,005 \$6,446,130 12.7%		523,272	\$868,550	. 66.0%	\$3,592,091	\$4,564,115	27.1%	\$4,115,364	\$5,432,665	32.0%
ind ind. \$782,784 \$777,201 0.7% ind ind. \$2,025,532 \$2,401,438 18.6% is. \$1,629,173 \$1,748,418 7.3% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$int ind. \$123,127 \$132,401 7.5% ind. \$2,051,116 \$2,582,173 25.9% ind. \$501,075 \$581,024 16.0% ind. \$602,887 \$1,737,136 28.6% \$1,558,501,075 \$6,446,136 76.5% \$1,063,840 76.5	<b>-</b>	,295,259	\$1,442,800	11.4%	\$7,889,125	\$9,974,275	26.4%	\$9,184,384	\$11,417,075	24.3%
ind. \$2,025,532 \$2,401,438 18.6% \$1,629,173 \$1,748,418 7.3% \$4,744,265 \$9,018,997 90.1% \$4,744,265 \$9,018,997 90.1% \$0int Ind. \$1,816,133 \$1,881,502 3.5% oint Ind. \$2,061,118 \$2,562,173 25.9% \$1nd \$501,075 \$581,024 16.0% Ind. \$602,887 \$1,737,138 28.6% \$602,887 \$1,063,840 76.5% \$607,805 \$6,721,005 \$6,446,130 12.7% \$	÷	\$782,784	\$777,201	.0.7%	\$1,790,684	\$2,045,831	14.2%	\$2,573,488	\$2,823,032	8,7%
## \$1,629,173 \$1,748,416 7.3% \$4,744,265 \$9,018,997 90.1% \$ int lnd. \$1,816,133 \$1,881,502 3.5% int lnd. \$123,127 \$132,401 7.5% in \$2,061,118 \$2,562,173 25.9% \$ ind \$501,075 \$581,024 16.0% in \$1,351,053 \$1,737,138 28.6% \$103,801 \$2,502,805 \$1,737,138 28.6% \$1,737,138 28.6% \$1,737,138 28.6% \$1,737,138 28.6% \$1,737,138 28.6% \$1,737,138 28.6% \$1,737,138 28.6% \$1,737,138 \$1,7		,025,532	\$2,401,438	18.6%	\$4,756,568	\$5,299,967	11.4%	\$6,782,100	\$7,701,405	13.6%
#4,744,265 \$9,018,997 90.1% \$ #thown \$1,816,133 \$1,881,502 3.5%  oint Ind \$123,127 \$132,401 7.5%  Ind \$501,075 \$581,024 16.0%  in \$1,351,053 \$1,737,138 28.6%  son \$6,721,005 \$6,446,130 12.7% \$		,629,173	\$1,748,418	7.3%	\$3,369,317	\$3,892,937	15.5%	\$4,998,490	\$5,641,355	12.9%
thtown \$1,818,133 \$1,881,502 3.5%  oint Ind \$123,127 \$132,401 7.5%  ind \$2,051,118 \$2,582,173 25.9% \$  Ind \$501,075 \$581,024 16.0%  in \$1,351,053 \$1,737,138 28.6%  son \$6,721,005 \$6,446,130 12.7% \$		,744,265	\$9,018,997	90.1%	\$24,166,000	\$30,396,384	25.8%	\$28,910,265	\$39,415,381	36.3%
oint Ind. \$123,127 \$132,401 7.5% \$2,051,118 \$2,562,173 25.9% \$ Ind \$501,075 \$581,024 16.0% In \$1,351,053 \$1,737,138 28.6% \$602,887 \$1,063,840 76.5% son \$6,721,005 \$6,446,130 12.7% \$	htown	,818,133	\$1,881,502	3,5%	\$4,067,050	\$4,839,617	19.0%	\$5,885,182	\$6,721,119	14.2%
\$2,051,118 \$2,582,173 25.9% \$ Ind \$501,075 \$581,024 16.0% In \$1,351,053 \$1,737,138 28.6% \$602,887 \$1,063,840 76.5% son \$6,721,005 \$6,446,130 12.7% \$		\$123,127	\$132,401	7.5%	\$600,849	\$773,604	28.8%	\$723,976	\$906,005	25.1%
Ind \$501,075 \$581,024 16.0%  III \$1,351,053 \$1,737,138 28.6% \$602,887 \$1,063,840 76.5%  son \$5,721,005 \$6,446,130 12.7% \$		91118	\$2,582,173	25.9%	\$13,355,155	\$17,207,118	28.8%	\$15,406,273	\$19,789,291	28.4%
\$1,351,053 \$1,737,138 28.6% \$602,887 \$1,063,840 76.5% \$5,721,005 \$6,446,130 12.7% \$	Pul	\$501,075	\$581,024	16.0%	\$2,173,152	\$2,938,173	35.2%	\$2,674,227	\$3,519,197	31.6%
\$602,887 \$1,063,840 76.5% \$5,721,005 \$6,446,130 12.7%		351,053	\$1,737,138	28.6%	\$6,270,319	\$8,132,563	29.7%	\$7,621,373	\$9,869,701	29.5%
, \$5,721,005 \$6,446,130 12.7%		\$602,887	\$1,063,840	76.5%	\$5,271,451	\$6,752,472	28.1%	\$5,874,338	\$7,816,312	33.1%
		.721,005	\$6,446,130	12.7%	\$14,684,327	\$17,336,222	18,1%	\$20,405,332	\$23,782,352	16.5%
\$1,128,469 \$1,469,653 30.2%		,128,469	\$1,469,653	30.2%	\$3,866,916	\$4,843,312	25.2%	\$4,995,385	\$6,312,965	26.4%

							1989.90	1990.91	
	000	6		000	600		STATE	STATE	e series
		1830:81   D. A. I.	*		STATE	%	2		*
RAME	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE
Eminence Ind.	\$380,935	\$418,457	7.0%	\$1,164,514	\$1,339,190	15.0%	\$1,555,449	\$1,757,647	13.0%
Hickman	\$423,245	\$626,368	48.0%	\$2,053,017	\$2,336,604	13.8%	\$2,476,261	\$2,962,972	19.7%
Hopkins	\$5,174,701	\$5,240,029	1,3%	\$15,784,113	\$18,582,622	17.7%	\$20,958,814	\$23,822,650	13.7%
Dawson Springs In	\$385,775	\$396,861	2.9%	\$1,395,416	\$1,714,564	22.9%	\$1,781,192	\$2,111,426	18.5%
Jackson	\$327,784	\$471,372	43.8%	\$5,182,361	\$6,881,923	32.8%	\$5,510,144	\$7,353,295	33.5%
Jefferson	\$162,686,137	\$174,720,882	7.4%	\$176,102,326	\$195,662,272	~	\$338,788,464	\$370,383,154	9.3%
Anchorage litt.	\$1,352,835	\$1,511,536	11,7%	\$637,249	\$710,978	11.6%	\$1,996,083	<b>\$2,222,514</b>	11.7%
Jessamine	\$3,345,096	\$5,185,248	55.0%	\$10,608,655	\$12,991,725	22.5%	\$13,953,752	\$18,176,973	30.3%
Johnson	<b>\$1,013,774</b>	\$1,143,085	12.8%	\$8,841,469	\$11,576,971	30.9%	\$9,855,243	<b>\$12,720,057</b>	29.1%
Paintsville Ind.	\$905,774	\$780,777	.13.8%	\$1,728,723	\$2,116,197	22.4%	\$2,634,497	\$2,896,974	10.0%
Kenton	\$10,158,481	<b>\$14,263,395</b>	40.4%	\$20,827,730	\$23,407,018	12.4%	\$30,986,212	\$37,670,413	21.6%
Beechwood Ind.	\$1,252,500	\$1,335,405	6.6%	\$1,319,094	\$1,493,656	13.2%	\$2,571,594	\$2,829,062	10.0%
Covington Ind.	44,826,741	\$5,392,029	11.7%	\$11,989,044	\$15,169,088	26.5%	\$16,815,785	\$20,561,116	22.3%
Erlanger-Elsmere	\$2,393,418	\$2,427,412	1.4%	\$4,282,380	\$4,806,091	12.2%	\$6,675,797	\$7,233,503	8.4%
Ludlow Ind.	<b>\$655,101</b>	\$697,370	6.5%	\$1,832,655	\$2,353,756	28.4%	\$2,487,756	<b>\$3,051,126</b>	22.6%
Knott	\$720,891	\$1,208,279	67.6%	\$7,704,335	\$9,935,445	29.0%	\$8,425,226	\$11,143,724	32.3%
Клех	\$981,492	\$1,778,865	81.2%	\$10,562,125	\$13,714,552	29.8%	\$11,543,617	<b>\$15,493,416</b>	34.2%
Barbourville Ind.	\$325,441	\$452,174	38.9%	\$935,700	\$1,232,907	31.8%	\$1,261,141	\$1,685,081	33.6%
Larue	\$675,580	\$1,259,605	86.4%	\$4,382,855	\$5,494,271	25.4%	\$5,058,435	\$6,753,876	33.5%
Laurel	\$2,500,247	\$4,698,181	87.9%	\$15,629,726	\$20,807,141	33.1%	\$18,129,973	\$25,505,323	40.7%
East Bernstadt In	\$47,238	\$78,412	86.0%	\$762,679	\$967,620	26.9%	\$809,917	\$1,046,032	29.2%
Lawrence	\$783,052	\$916,151	17.0%	\$6,293,770	\$7,791,801	23.8%	\$7,076,822	\$8,707,952	23.0%
[66	<b>\$411,151</b>	\$554,204	34.8%	\$3,056,152	\$3,933,936	28.7%	\$3,467,303	\$4,488,140	29.4%
Lestie	\$715,638	\$1,100,890	53.8%	\$6,000,279	\$7,871,764	31.2%	\$6,715,918	\$8,972,653	33.6%
Letcher	\$973,671	\$1,698,926	74.5%	\$9,816,525	\$12,434,183	26.7%	\$10,790,196	<b>\$14,133,108</b>	31.0%
Jenkins Ind.	\$421,517	\$392,813	-6.8%	\$1,955,101	\$2,593,244	32.6%	\$2,376,618	\$2,986,057	25.6%
Lewis	\$680,640	\$846,835	24.4%	\$6,051,757	\$7,751,132	28.1%	\$6,732,397	\$8,597,968	27.7%

							1989-90	1990-91	
	1989-90	1990.0		1989-90	1990		STATE	STATE	
DISTRICT	10CA	LOCAL	%	STATE	STATE	%	& LOCAL	& LOCAL	%
NAME	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE
	\$955,869	\$1,705,568	78.4%	\$8,059,413	\$10,480,009	30.0%	\$9,015,282	\$12,185,577	35.2%
Livingston	<b>\$653,672</b>	\$1,049,346	<b>99:09</b>	\$3,217,123	\$3,651,705	13.5%	\$3,870,795	\$4,701,051	21,4%
Logan	\$1,401,208	\$1,530,951	9.3%	\$6,175,283	\$7,512,556	21.7%	\$7,576,491	\$9,043,506	19.4%
Aussellville Ind.	\$1,134,562	\$1,208,446	8.5%	\$3,181,439	\$3,915,607	23.1%	\$4,316,001	\$5,124,053	18.7%
Lvon	\$450,223	\$686,556	52.5%	\$1,736,097	\$1,941,207	11.8%	\$2,186,319	\$2,627,762	20.2%
Madison	\$3,499,824	\$5,838,097	<b>48.8%</b>	\$16,288,233	\$20,983,993	28.8%	\$19,788,057	\$26,822,089	35.5%
Berea Ind.	\$658,748	\$823,181	25.0%	\$2,122,649	\$2,631,473	24.0%	\$2,781,397	\$3,454,653	24.2%
Magoffin	\$392,983	\$811,590	106,5%	\$6,950,727	\$8,911,467	28.2%	\$7,343,709	\$9,723,057	32.4%
Marion	\$1,136,460	\$1,371,017	20.6%	\$6,252,465	\$7,748,110	23.9%	\$7,388,925	\$9,119,128	23.4%
Marshall	\$2,316,904	\$2,941,072	26.9%	\$9,264,532	\$10,753,308	16.1%	\$11,581,436	\$13,694,360	16.2%
Martin	\$1,110,990	\$1,480,827	33.3%	\$5,941,749	\$7,562,885	27.3%	\$7,052,739	\$9,043,712	28.2%
Mason/Maysville	<b>\$2,052,504</b>	\$2,646,006	28.9%	\$5,726,645	\$6,545,928	14.3%	\$7,779,149	\$9,191,934	18.2%
McCracken	\$3,022,979	\$4,604,600	52.3%	\$12,894,624	\$14,343,433	11.2%	\$15,917,603	\$18,948,033	19.0%
Paducah Ind.	\$4,509,663	\$4,832,807	7.2%	\$8,136,906	\$9,287,621	14.1%	\$12,846,569	\$14,120,427	11.7%
McCreary	\$565,745	\$785,817	38.9%	\$8,004,985	\$10,558,927	31.9%	\$8,570,730	\$11,344,745	32.4%
WicLean	\$668,924	\$941,348	40.7%	\$3,833,103	\$4,273,091	11.5%	\$4,502,026	\$5,214,440	15.8%
Meade	\$1,655,790	\$1,992,338	20.3%	\$7,331,975	\$9,266,443	26.4%	\$8,987,765	\$11,258,781	25.3%
Menifee	<b>\$165,475</b>	\$245,827	48.6%	\$2,034,883	\$2,585,824	27.1%	\$2,200,357	\$2,831,651	28.7%
Mercer	\$1,049,612	\$1,333,038	27.0%	\$4,076,530	\$4,952,662	21.5%	\$5,126,142	\$6,285,700	22.6%
Burain Ind.	\$282,909	\$371,573	31,3%	\$797,712	\$963,071	20.7%	\$1,080,621	\$1,334,644	23.5%
Harrodsburg Ind	\$555,098	\$683,907	23.2%	\$2,037,247	\$2,407,178	18.2%	\$2,592,344	\$3,091,085	19.2%
Metralite	<b>\$420,163</b>	\$706,619	68.2%	\$3,898,881	\$4,660,448	%9°61	\$4,317,044	\$5,367,065	24.3%
Monroe	\$1,034,271	\$979,646	-5,3%	\$4,684,501	\$6,015,339	28.4%	\$5,718,771	\$6,994,985	22.3%
Montpomery	\$1,875,364	\$2,171,659	15,8%	\$9,096,933	\$10,870,807	19.5%	\$10,972,297	<b>\$13,042,267</b>	18.9%
Morgan	\$433,078	\$816,518	88.5%	\$5,407,030	\$6,995,671	29.4%	\$5,840,108	\$7,812,189	33.8%
Muhiembera	\$5,302,596	\$5,776,907	8:9%	\$11,618,321	\$13,760,037	18.4%	\$16,920,918	\$19,536,943	15.5%
Nelson	\$1,683,082	\$2,440,996	45.0%	\$7,753,873	\$9,063,972	16.9%	\$9,436,954	\$11,504,968	21.9%

							1989.90	1990.91	
	1989.90	1990.91		1989.90	1990.91		STATE	STATE	
DISTRICT	LOCAL	LOCAL	%	STATE	STATE	%	& LOCAL	& LOCAL	8
NAME	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE
Bardstown ind.	\$1,336,431	\$1,859,707	39.2%	\$2,958,395	\$3,392,184	14.7%	\$4,294,826	\$5,251,891	22.3%
Nicholas	\$424,516	\$732,574	72.6%	\$2,667,928	\$3,349,281	25.5%	\$3,092,443	\$4,081,855	32.0%
Ohio	\$1,523,177	\$2,239,040	47.0%	\$8,430,757	\$10,496,065	24.5%	\$9,953,934	\$12,735,105	27.9%
Oldham	\$6,103,424	\$6,856,727	12.3%	\$13,222,311	\$15,268,575	15.5%	\$19,325,736	\$22,125,302	14.5%
Owen	\$840,435	\$847,497	0.8%	\$3,673,841	\$4,734,781	28.9%	\$4,514,277	\$5,582,278	23.7%
Owsley	\$225,912	\$275,656	22.0%	\$2,252,264	\$2,895,686	28.6%	\$2,478,175	\$3,171,342	28.0%
Pendletom	<b>\$855,694</b>	\$1,019,848	19.2%	\$4,984,472	\$6,375,326	27.9%	\$5,840,167	\$7,395,174	26.6%
Perry	\$1,356,302	\$2,356,521	73.7%	\$11,419,080	\$15,130,158	32.5%	\$12,775,381	\$17,486,679	36.9%
Hazard Ind.	\$756,971	\$817,242	8.0%	\$2,377,068	<b>\$3,078,644</b>	29.5%	\$3,134,039	\$3,895,886	24.3%
Pike	\$4,774,464	\$6,890,723	44.3%	\$28,208,757	\$36,572,599	29.6%	\$32,983,222	\$43,463,322	31.8%
Pikeville Ind.	\$1,745,978	\$1,835,616	5.1%	\$2,554,047	\$2,954,372	15.7%	\$4,300,025	\$4,789,988	%#T
Powell	\$609,726	\$789,633	29.5%	\$5,440,799	\$6,984,300	28.4%	\$6,050,525	\$7,773,932	28.5%
Pulaski	\$2,272,794	\$4,265,933	87.7%	\$13,859,044	\$17,950,332	29.5%	\$16,131,838	\$22,216,265	37.7%
Science Hill Ind.	\$99,864	\$160,489	60.7%	\$535,388	\$689,679	28.8%	\$635,252	\$850,168	33.8%
Somerset ind.	\$1,561,112	\$1,732,628	11,0%	\$4,020,331	\$4,666,637	16.1%	\$5,581,444	\$6,399,266	14.7%
Robertson	\$137,550	\$223,498	62.5%	\$886,101	\$1,029,553	16.2%	\$1,023,651	\$1,253,051	22.4%
Rockcastle	\$683,714	\$1,106,853	61.9%	\$5,901,550	\$7,657,092	29.7%	\$6,585,265	\$8,763,945	33.1%
Rowan	\$1,303,763	\$1,841,070	41.2%	\$6,373,418	\$8,340,924	30.9%	\$7,677,181	\$10,181,994	32.6%
Russell	\$668,610	\$1,425,397	113.2%	\$5,361,418	\$6,879,187	28.3%	\$6,030,028	\$8,304,583	37.7%
Scott	\$3,027,078	\$6,172,008	103.9%	\$8,963,246	\$10,519,390	17.4%	\$11,990,324	\$16,691,398	39.2%
Shelby	\$2,209,894	\$5,007,691	126.6%	\$8,623,798	\$10,353,562	20.1%	\$10,833,693	<b>\$15,361,253</b>	41.8%
Simpson	\$1,572,266	\$2,012,196	28.0%	\$5,944,633	\$6,710,058	12.9%	\$7,516,899	\$8,722,254	16.0%
Spencer	\$529,866	\$824,816	55.7%	\$3,037,212	\$4,000,303	31.7%	\$3,567,079	\$4,825,119	35.3%
Taylor	\$690,069	\$1,371,112	98.7%	\$4,915,967	\$5,903,201	20.1%	\$5,605,976	\$7,274,313	29.8%
Campbellsville in	\$682,699	\$928,932	36.1%	\$2,919,354	\$3,637,424	24.6%	\$3,602,052	\$4,566,356	26.8%
Todd	\$580,957	\$695,331	19.7%	\$4,145,873	\$5,030,595	21.3%	\$4,726,829	\$5,725,926	21.1%
Trigg	\$737,041	\$928,451	26.0%	\$3,948,384	\$4,404,668	11.6%	\$4,685,424	<b>\$5,333,119</b>	13.8%

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CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	CHANGE	REVENUE	REVENUE	Z
×	& LOCAL	& LOCAL	%	STATE	STATE	%	LOCAL	LOCAL	DISTRICT
	STATE	STATE		1990-91	1989-90		1990.91	1989-90	
	1990-91	1989-90							
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Trimble	\$923,315	\$1,000,855	8.4%	\$2,435,435	\$2,720,342	11.7%	\$3,358,750	\$3,721,197	10.8%
Union	*1,451,215	\$1,785,128	23.0%	\$6,576,811	\$7,380,195	12.2%	\$8,028,027	\$9,165,323	14.2%
Warren	\$6,509,073	\$8,001,185	22.9%	\$19,015,843	\$22,721,644	19.5%	\$25,524,916	\$30,722,830	20.4%
Bowline Green Ind	\$4,383,624	\$4,863,347	10.9%	\$7,376,501	\$8,306,324	12.6%	\$11,760,126	\$13,169,670	12.0%
Washington	\$701,497	\$1,105,659	57.6%	\$3,746,069	\$4,558,565	21.7%	\$4,447,566	\$5,664,224	27.4%
Wavne	\$589.896	\$796,691	35.1%	\$5,606,098	\$7,397,805	32.0%	\$6,195,994	\$8,194,496	32.3%
Monticello Ind.	\$156,842	\$247,351	57.7%	\$1,725,783	\$2,213,639	28.3%	\$1,882,625	\$2,460,991	30.7%
Webster	\$1.033,632	\$1,608,173	£5.6%	\$4,689,215	\$5,351,067	14,1%	\$5,722,847	\$6,959,240	21.6%
Providence Ind.	\$225,399	\$258,524	14.7%	\$1,210,649	\$1,536,658	26.9%	\$1,436,048	\$1,795,182	25.0%
Whitley	\$797,237	\$1,507,677	89.1%	\$8,679,267	\$10,500,163	21.0%	\$9,476,504	<b>\$12,007,840</b>	26.7%
Corbin	\$1,118,014	\$1,411,065	26.2%	\$4,096,352	\$4,928,667	20.3%	\$5,214,367	\$6,339,731	21.6%
Williamsburg Ind.	<b>\$364,341</b>	\$517,569	42.1%	\$2,084,041	\$2,616,045	25.5%	\$2,448,382	\$3,133,615	28.0%
Wolfe	\$241,551	\$358,134	48.3%	\$3,466,796	\$4,394,400	26.8%	\$3,708,347	\$4,752,534	28.2%
Woodford	<b>\$2,705,772</b>	\$4,681,035	73,0%	\$6,786,264	\$7,584,392	11.8%	\$9,492,036	<b>\$12,265,427</b>	28.2%

20.5%

20.3% \$1,753,389,632 \$2,112,397,288

20.8% \$1,268,915,122 \$1,527,110,297

\$484,474,510 \$585,286,990